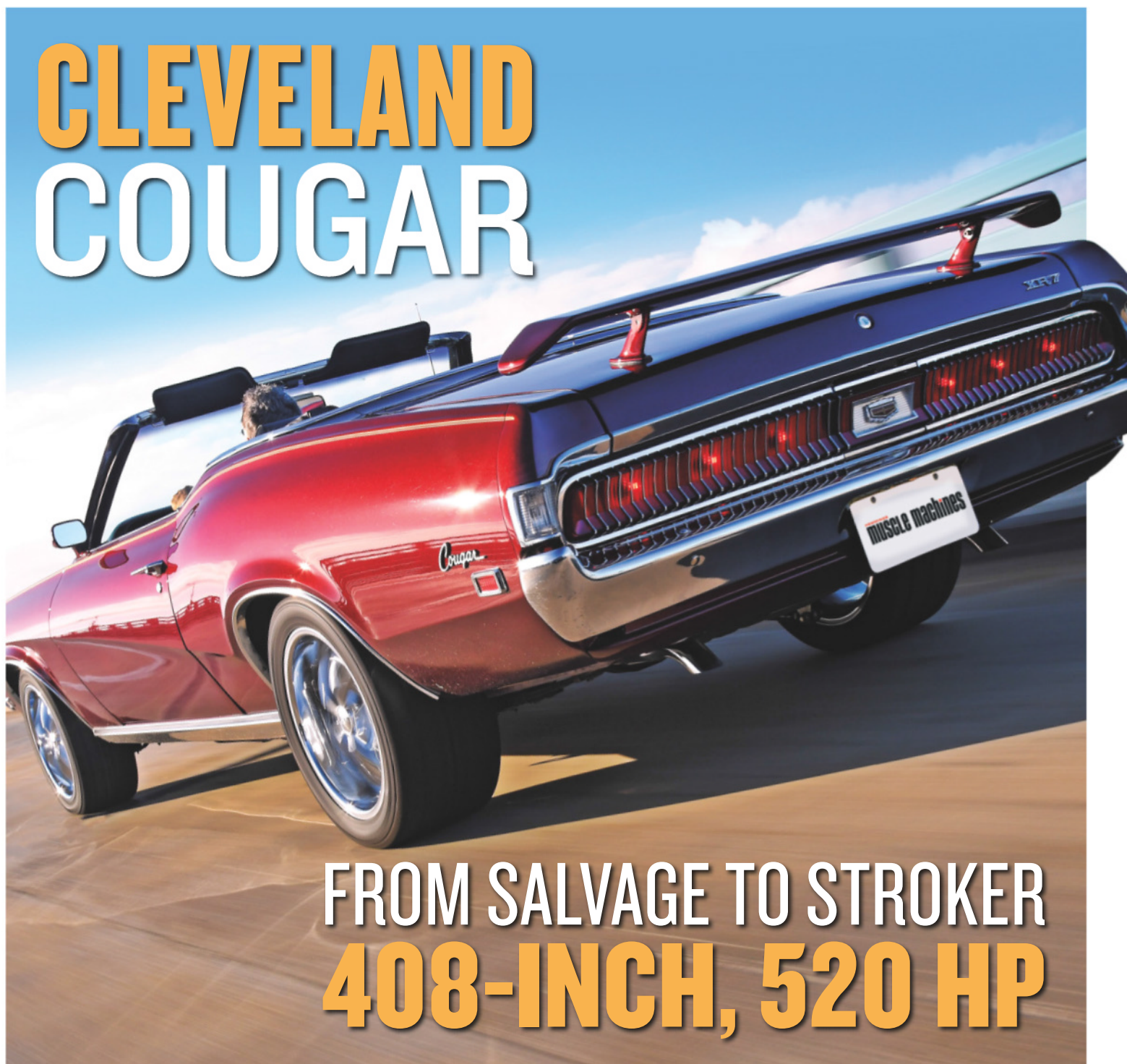


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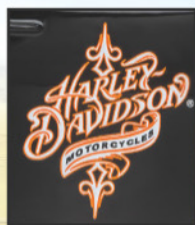


SPOTLIGHT: Interior Special

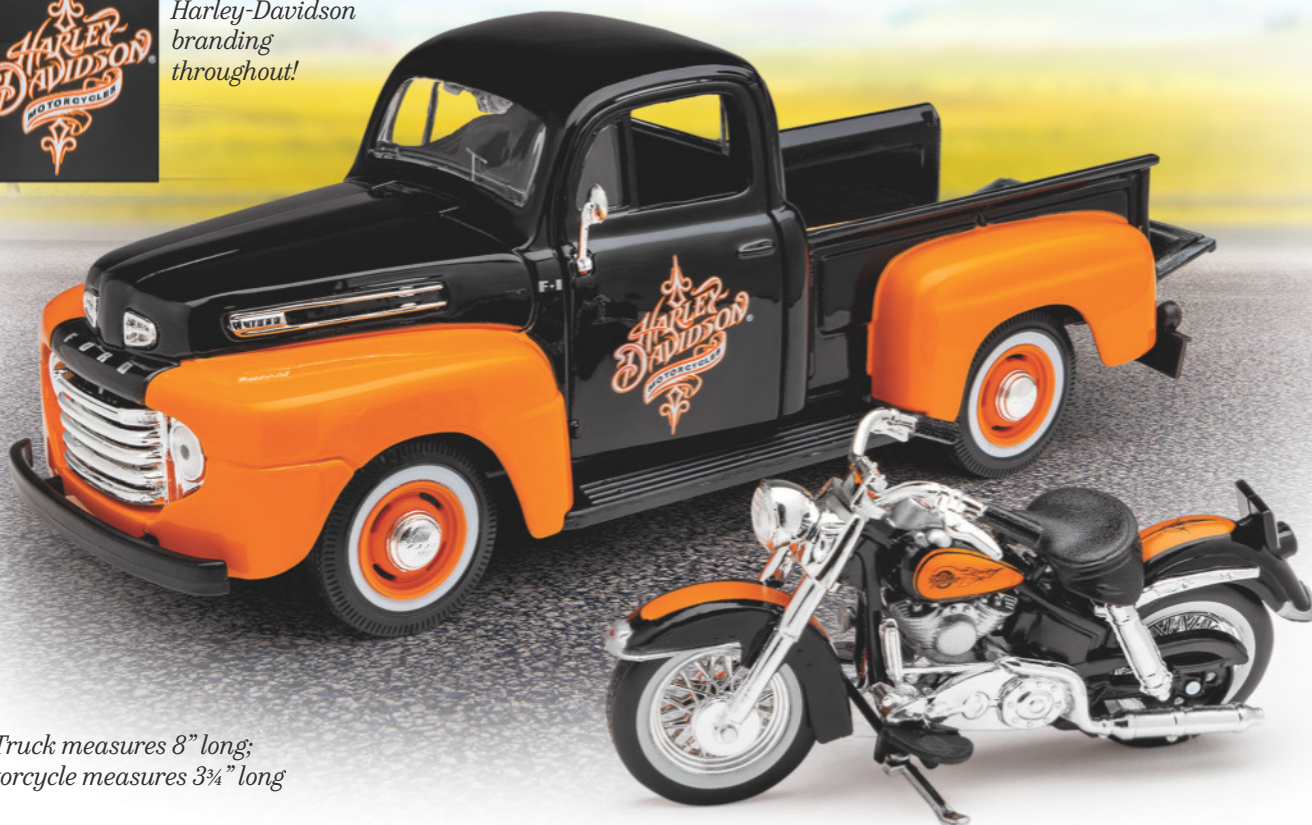
ON THE COVER: Contributor Scott Lachenauer captured Robert Entwistle's '69 Cougar XR7 convertible buzzing the highways of New Jersey's shore towns last summer.

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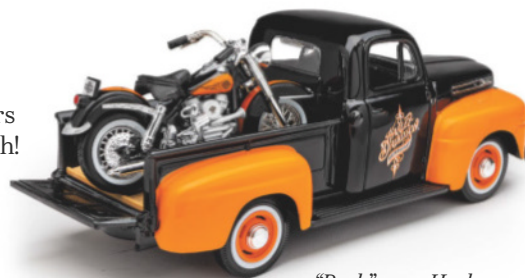
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The one
thing that
seems to
remain
constant
is our
devotion to
these cars.

Shifting Standards

It's interesting how our standards change over time. What was acceptable years ago might not be okay now; conversely, things we rejected in the past may now be valued. The second arrangement certainly applies to vintage vehicles, and when it comes to cars of the original muscle era, most of us likely have recollections of particular cars we may have cast off way back when that we'd really like to have now.

Discussion of such things came up recently in a conversation about Dodge's 1968-'70 Charger—a model that has been experiencing significant value escalation in recent years. As a result, anything resembling a '68-'70 Charger seems to be worth a small fortune, and this is where Dodge's stylish coupes serve as a good example of the steadily shifting standards. The acceptance of lesser 318 and 383 versions is one indicator—many gearheads would have insisted on an R/T not so long ago. The acceptable condition of the car in question has seen a steady slide too. Today, people seem far less particular.

I looked around at some recent Charger sales and was astounded by some of the transaction figures. The fervor to buy even far-less-than-perfect specimens reminded me of some of the Chargers that had crossed my path years ago. As a teen, it was already tough to find a decent '68 or '69 Charger, but one of my friends had managed to obtain one of each. The first was a '69 that had been a 383 four-barrel originally, but which was later fitted with a 440 Magnum. Given that we were in the Northeast, the car was rusty, but he had it patched up and painted and it looked good... for a while.

Later, while the '69 was being painted, my friend needed something else to drive and came upon a '68 Charger with a 318. This one had a really nice original interior, but it was also rusty, with missing sections of lower quarter panel, holes in the rear valence panel, and so on. But it ran and drove great, so he used it daily for a few months.

At the time, both of those cars were seen as stepping stones—placeholders of a sort, providing the experience of having a Charger until a better one could be found. A couple years later, after the '69's paint job started coming apart as the body filler revealed itself, my friend sold it off, and I clearly recall us thinking it was "just too far gone to be worth fixing the right way." The '68 was sold around the same time for similar reasons, all of us thinking there was no point in trying to fix that much decay on a 318 car.

Of course, what we considered too rotten in

the '80s would now be considered a great starting point. Both of those cars were structurally sound, and though the floorpans on both cars were getting pin-holed, neither had gotten anywhere close to the full Flintstone effect.

So, while those two Chargers were both sold off as being either beaters or parts cars, they were both examples we'd pay real money to acquire today. The '68 still haunts me to this day as I think about how easy it would have been to make it a nice car... today's version of easy, that is.

That sort of situation played out repeatedly for me and my friends during the mid-to-late '80s. My first car, for example, was a '72 Chevelle that had lived a hard life prior to my ownership. I battled for a couple years to bring it back, but my knowledge and skills were limited, so it too went away. I'd buy that car back today in an instant, but I'd have to spend far more, even accounting for inflation. A car in the condition that one was in then is simply more valued today.

Part of the shifting of standards has to do with what people are willing to do to save a car; determining that has something to do with what seems feasible. Back in the '80s, the idea of cutting out the entire floor—from rocker to rocker and toe board to trunk pan—would have seemed nuts to all but the most seasoned restorers, and those guys would have told you not to bother. Today, that operation is performed regularly in shops across the country. Granted, the procedure is enabled by the availability of brand-new full floor assemblies from the reproduction aftermarket, but even if those panels had been offered years ago, most shops would have advised most owners to go and find a better car instead.

That's really the thing—this shifting of the acceptance level of steadily worse cars is driven in large part by the available population of those cars; meanwhile, the passage of time shows us just how far the tin worm can go, evolving that norm too. The one thing that seems to remain constant is our devotion to these same cars.

Though I'd love to have that larger field of '60s and '70s muscle cars back, and for pricing more in line with the '80s, I think the growing willingness to save heavily deteriorated examples is a good thing. Cars being pulled from junkyards, parts cars turning into restoration candidates, and so on—all of it makes better use of what's left, and it's driving a lot of us to gain more skills in the process. Let us know what you may have pulled back from the brink. ■

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By Jeff Koch



STELLANTIS

2023 CHRYSLER 300C: SUDDENLY IT'S 2012 485 HORSEPOWER, \$55,000, LIMITED PRODUCTION

Remember the halcyon days of 2012, the burly broad-shouldered Chrysler 300 SRT8, and its monstrous 470-horsepower, 6.4-liter pushrod V-8 throwing you back in that comfy leather seat at the tip of the throttle? Miss it? Us too. Good news: for 2023, that kind of power will once again be available in a Mopar sedan that's not a Charger.

After half a decade of Fiat-Chrysler and Stellantis leaving the Charger's twin, the Chrysler 300, to wither and die on the vine, it's going out with a bang. Behold: the return of the vaunted 300C nameplate, which took a brief hiatus earlier this decade. It will be powered by the latest version of the 6.4-liter Hemi V-8 that was in the SRT8 a decade ago: 485 horses, 475 pound-feet of torque, 0-60 times in the mid-to-low 4-second range, and mid-12-second quarter-mile times will be yours for the taking. (You'd think they would have found more than 15 horsepower between then and now, but ...) It's the same engine you get in Scat Pack-equipped Chargers and Challengers.

Of course, other goodies are part of the package: a 3.09:1 final drive with limited-slip differential, four-piston Brembo brake calipers, active shocks and struts, an active exhaust, a 19-speaker Harman-Kardon stereo, and the usual special badging. It is a Chrysler, after all. Whatever that means these days.

Just 2,000 will be built (and another 200 for Canada), in your choice of black, white, or red; the restrained color

palette mirrors the original 300's minimal color choice back in the '50s. MSRP is \$55,000, probably a reference to the original 300's 1955 intro and roughly a ten-percent bump above a comparable Charger. Weirdly, it's just six grand more than what a new 300 SRT8 cost in 2014, which makes this car better value, considering inflation. The new (and outgoing) 300C should be at your local Chrysler dealership as we speak. ■



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It's also popular because it's a 90% Silver Dollar with an American design that was first minted in 1878, from American silver that came from the Comstock Lode in Nevada. It was last minted in 1921 for circulation—which is why 2021 marked the coin's 100th anniversary.

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BACKFIRE

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Letter of the Month: Alternative Era

Terry McGean's column in the November '22 issue ("Nostalgia Trip, Take Two," *HMM* #231), along with the feature about the low-mileage "late-model" Mustangs really hit home with me. I've been fortunate to own the same '68 GTO for 30 years now. I picked it up in the early '90s as my first car when, I guess you could say, they were still attainable. You graciously featured that story in the June 2018 issue's Muscle Car Scrapbook feature ("Generational GTO," *HMM* #178).

As a gangly 20-year-old college student, I paid a visit to my local Pontiac dealer in 1995 and somehow cajoled the salesman into letting me test drive a red six-speed Firehawk convertible. That car was so far out my league at the time, but that experience stuck with me, and I put an SLP-modified Firebird on my bucket list of cars to own. With the Firebird's demise in 2002 went the dream of owning a Firehawk, but I was able to experience owning a new '04 GTO, which was a lot of fun, but never quite scratched the itch.

So, I started hunting for an early example Firehawk. I know the LT1 engines leave a lot to be desired over the later LS cars, but the limited production numbers and simpler styling over the later cars called to me. After a long search highlighting a bunch of worn-down cars, I found a fantastic low-mile (17,000) six-speed example of a car maybe even more

unique than a Firehawk with more Pontiac heritage: the Comp T/A.

The Comp T/A was produced to promote the anniversary of the BF Goodrich Comp T/A tires. The effort was spurred by Jim Mattison (of Pontiac Historic Services) as a nod to the original Tire Bird of the early '70s. Two hundred were planned to be produced, but they only ended up making a little over 160 between 1995-'97. Mine is #6 of 72 produced in 1995 and cost a whopping \$36,000 when new — well beyond my reach back then, and almost in Corvette territory.

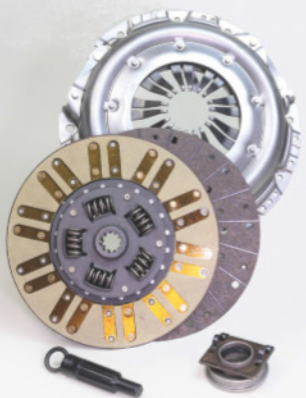
In the nearly 30 years since, cars have gotten faster, higher in quality, and more reliable, but there's just something cool to me about having an example of "the best" from a snapshot in time. My T/A definitely exudes '90s GM build quality just as you'd expect, but that's part of the charm. In a bit of irony, it's actually older than my '68 GTO was when I acquired it.

This car doesn't garner the attention my GTO does, but it's not uncommon to run into someone who shares the same enthusiasm I do for them. While the '60s and '70s cars will always be the icons for the hobby, I appreciate you highlighting how interests evolve with the times to include a broader range of cars.

Ken Skistimas
Clayton, California

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MICHIGAN MEMORIES

I was fortunate enough to see some great examples of the hot cars of the first muscle car era, but several really stand out in my memory, including the Chrysler Turbine Car, Ford Fairlane 427 Thunderbolt, and a Pontiac Catalina 421 Super Duty. The one common thing I noticed was that all of those cars had the “M” in the middle of the license plate, with the word “Manufacturer” at the bottom, and each was driven by factory executives or engineers.

The standout was the Pontiac 421 Super Duty. I was standing on the sidewalk on Grand River just west of Telegraph one evening when the S.D. stopped at the red light in the curb lane; the driver appeared to be maybe mid-20s. In the lane next to him was a car with several juveniles who were verbally harassing the S.D. driver. “Better take daddy’s car home...” and so on. When the light turned green, that S.D. driver put on the greatest display of acceleration I had ever seen and left the other car in his tire smoke.

J. Harrington

Upper Peninsula, Michigan



BETWEEN FRIENDS

I’ve been a subscriber to *HMM* since day one; I’m also a subscriber to *Hemmings Motor News*. I have a 1970 Chevelle LS6 that I bought in 1997, when it was advertised at \$12,000 and I only had \$10,500 to spend. When my friend Bobby and I arrived at the gentleman’s house where the car was being sold, there were at least 10 people circling the Chevelle. I said to Bobby, “Forget it — I’ll never get this car.” After 15-20 minutes of looking it over, I pulled the seller to the side and told him the car was worth the money he was asking but that I only had \$10,500 to spend. I offered that if he didn’t get his asking price to call me and I would be back the next day.

The man’s name turned out to be Kurt, and he called me that Sunday night and told me if I wanted the Chevelle, it was



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mine. Needless to say, I was very happy and picked it up Monday evening. The car was completely stock — no headers, original wheels, correct intake manifold... Everything was there except the correct carburetor.

I drove it for a few years with the 11.25:1 compression, but then it finally broke a piston ring-land and started to smoke. I pulled the motor out and sent it to the machine shop, received it back, and my brother-in-law, Ted Voorneveld, assembled it in my garage. It ran perfectly and I drove it a few more years. Then, for some reason (to this day I still don't know why), I listed it for sale on a Chevelle website for \$21,000. I must have gotten 20 phone calls the first day, which you'd think would have sounded the alarm bells in my head — I should have pulled the ad.

A gentleman from Canada called and said he was very interested and that he would fly down (I lived on Long Island at the time) as soon as possible. When he arrived and got out of his car, he pulled his sunglasses down, looked at the Chevelle, and said, "Sold." That was in 2002.

His name was Darryl Erb, and we have been close friends since that day. He came down to Long Island the next week and loaded the Chevelle on a trailer, and the moment he pulled away, I had instant regret. Darryl and I stayed in touch with texts and phone calls over the years and I told him, "If you ever want to sell the car, I want it back." He was pretty sure he would never sell it, but around 2019 he started to toy with the idea, so I told him, "Name the price and I will buy it back." We decided on \$40,000 — I know he could have gotten more for the car, but he wanted me to get it back.

In September of 2020 we made the deal. It took almost a month to get it picked up, through customs, and down to me. I would be lying if I told you I didn't have a tear in my eye when it was backed out of the trailer. It is a Van Nuys (California)-built Chevelle and they almost never have build sheets, so I was determined to prove it a real LS6. I watched a lot of videos on how to document the car by part numbers, put it all together, and sent it to the International LS6 Registry. It was accepted into the Registry the next day. The car was built on January 28th, it has a March '70 CE warranty LS6 engine, the matching-numbers M22, and a 4.10:1 12-bolt rear that was only available on the LS6 in 1970.

Darryl and I are still close friends to this day, and we have an agreement: He has first dibs if I ever decide to sell it again. She is not perfect — the paint is at least 30 years old — but it presents very well and she's mine.

Rich Kinane
Madison, North Carolina

FOX FAN

Just wanted to let you know that I really enjoyed the latest Fox Mustang feature in *HMM* and I'm looking forward to seeing future stories on some of those cars. I am probably around the same age as *HMM* editor Terry McGean, and it sounds like we had the same experiences growing up around these cars. I came close to buying a new one in '88. It was a Scarlet Red GT that wasn't optioned out — I still remember sticker was \$12,900, but insurance was almost half that per year, so I didn't get it. A few years later I got a used '82 GT, which was followed by a '82 5.0 Capri, then an '86 GT followed by an '89.

Thanks again — I enjoy the magazine every month.

Rob McNair
Via email



CONVERTIBLE CORRECTION

Nice article on the 1984 T/A convertible ("Euro Thrash," *HMM* #231). Good to see an article on convertible third-gen F-bodies.

The sentence in the last paragraph that reads, "GM finally relented in 1987 and offered ragtop Firebirds through official channels until the end of the F-body line's life in 2002," is not accurate. Pontiac only officially offered convertibles from 1991 to 2002. Up until 1987, there were various companies that did conversions on F-bodies and other models, with Straman being one of them. When ASC developed its superior conversion, GM brought the convertible in house as an RPO and model designation,

but for Chevy only — Pontiac did not become part of that program until 1991. I have a copy of the announcement letter from Pontiac from January, 1991.

Because the Firebird and Camaro were twin cars in the areas that the conversion affected, ASC would do the surgery on either car. The difference was that Chevy cars had a model number and VIN digit that reflected they were convertibles, while all 1987-'90 Firebird convertibles had a VIN showing they were coupes. A Pontiac dealer would contract with ASC to convert a car for their customer or their stock. The dealer would add a sticker to the car showing the conversion and the costs. My local Pontiac dealer did this during the 1987-'89 model years.

Starting in 1991, Firebirds had the convertible designation coded in the VIN. The sixth digit is a 3 for a convertible, 2 for a coupe. All pre-1991 conversions will have the 2 as the sixth digit. They also were given the model designation as FS67 (also 2FS67), as shown on the build sheet for mine in box 76. They were invoiced as convertibles by Pontiac and their window sticker read "1991 [or 1992] Trans Am Convertible".

An incredibly detailed book on third-gen Firebirds came out last summer; *All 1982-1992 Pontiac Firebird Colors, Codes & Quantities* by Robert Casey. It's a must-own for third-gen vehicle information. The 1991 and 1992 convertibles are covered in the sections for those years; the 1986 through 1990 convertibles are covered in a separate section. Only ASC conversions are discussed.

I am the original owner of a 1991 T/A convertible, MM5 manual with WS6 in code 45 Dark Green Metallic and code 662 Camel leather interior. It has 10,700 miles as of October 2022. Production on all T/A convertibles was low due to production capacity promised to Chevy in 1987. Pontiac got leftover capacity in 1991 and 1992 resulting in approximately 550-650 per year. Manual cars were less than 20 percent of production. Dealers could not order cars as there would not be enough for every dealer. They were allocated and "preferenced" by each zone and given to dealers based on sales volume. They were not common when new and are rarely seen today.

Chip Stearns
Waukesha, Wisconsin ■

"In recent years, a group of international designers and artists has rediscovered the innate modernity of Italian blown glass, turning to Murano as inspiration..." — New York Times, 2020



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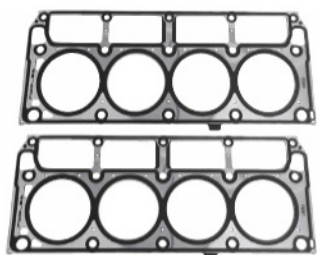


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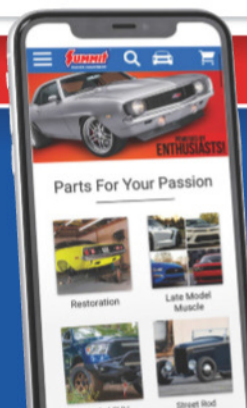


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■ MODIFIED



STORM CAT

A '69 COUGAR XR7
CONVERTIBLE IS
RESCUED FROM
COASTAL DEVASTATION

WORDS AND PHOTOGRAPHY BY SCOTTY LACHENAUER

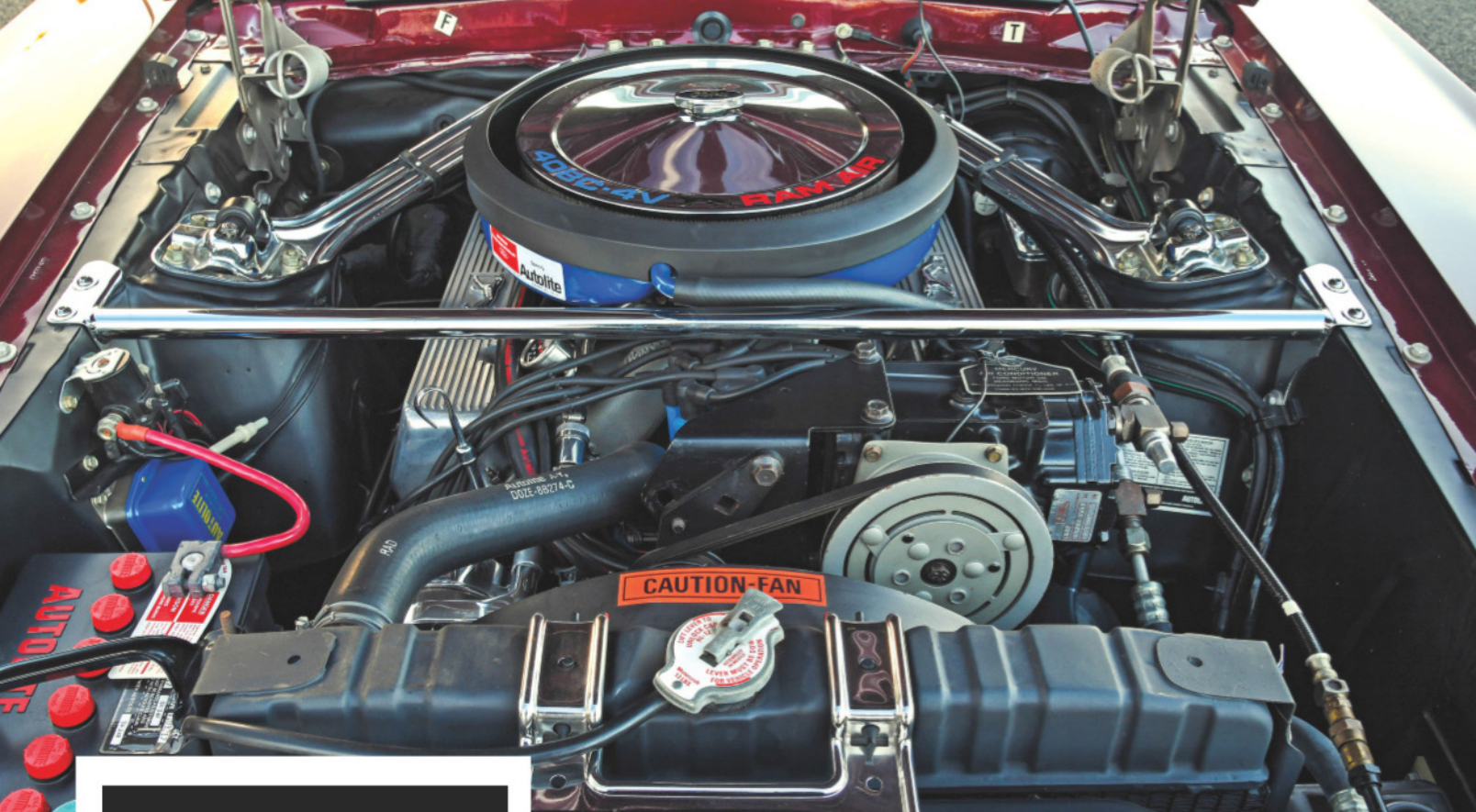


T TAKES A BELLY FULL OF STAINLESS-STEEL GUTS

to do something like 17-year-old Robert Entwistle did 45-odd years ago, when he decided to forgo furthering his education in order to pursue his interest in cars. “Just like that, I just dropped out [of tech school]. I followed my heart. My parents were horrified. The thought that I would toss away a full scholarship to electronics school to be a ‘grease monkey’ at a local shop was too much to bear. Yes, I signed it all away. I just wanted to work on cars.”

While his parents may not have been pleased with him for choosing his own path at that time in his life as a young, bright teenager, Robert is immeasurably happy with the final outcome.

“I didn’t want to go to school; I wanted to find out what I really wanted to do. And at that moment in time, all I wanted to do was fix cars,” Robert states. Though he decided another degree was not in his immediate future, he still used his time wisely and did not rest on his laurels. “The service station I worked at received several motor service magazines. I read them voraciously, especially the NIASE (now ASE) study guides that came into the shop.”



Ford's 351 Cleveland V-8 didn't debut until the '70 model year, but Robert's affinity for the hot small-block led him to transplant one into his '69 Cougar; it now displaces 408 inches.



Before long, Robert and his boss were taking their NIASE exams and getting their shop certifications. His employer stopped at a few, but the studious teenager took on the whole course load. "I ended up getting all seven certifications I was eligible for. I was fully NIASE-certified by my 19th birthday."

It just so happens that the bustling shop was the official repair facility for a local industrial enterprise. At their business location was a derelict '70

Cougar hardtop sitting in the parking lot, dressed with a '69 front clip. It also had a 351 Cleveland under the hood, a powerplant Robert thought was pretty cool. "I ended up buying the car for \$300, which was a lot of money back then for a 17-year-old making \$100 bucks a week. I think that's where my love affair with the Mercury Cougar started."

The young gun rebuilt the Mercury in his spare time, soon adding a Toploader four-speed behind the engine, along with a limited-slip rear and even his own home-brewed black lacquer paint job to boot. "It was my sidekick...my partner in crime. I nicknamed it 'Cleveland Rocks,' and it was my go-to transportation, not to mention that it was a well-known participant on the Asbury Park 'circuit' back in the '70s. There was just something so compelling about building my own ride."

That certain Cougar would not be Robert's last. Flash-forward almost three decades and things had changed over the course of time. Robert ended up going back to school for an engineering degree and, well, that Cougar had seen better days. "I was ready for my next project. So, instead

of rebuilding my coupe, I decided I wanted something different. I wanted a Cougar, but this time it was going to be a drop-top."

His search led him to an interesting '69 Cougar XR7 convertible in Virginia. In the ad it appeared to be just fine; however, embedded in its history was a major issue. In 2003, Hurricane Isabel roared up the East Coast as a Category-5 storm, initially making landfall in North Carolina. The northern surge of the storm flooded out areas of Virginia's Chesapeake Bay region, leading this Cougar to take an unfortunate salty bath, which resulted in it being totaled by its insurance company.

The original owner loved the car and ended up buying it back from the insurance company, only to end up selling it due to lack of funds to make the needed repairs. Robert decided he wanted to check out the needy Cougar and soon made the run down to Virginia. He also had rented a tow dolly just in case he purchased the project ride. "When I got there, it looked okay in person, but it was full-Bondo and was laden with typical rust known to invade these Mercurys. The interior and engine bay were also

full of mud and pine needles from the storm. The 351 Windsor had ten quarts of salt water where the oil once was. It was basically a mess," Robert recalls.

Despite the issues, he was still interested in the storm-ravaged Cougar: "For some reason, I thought it was a good starting point for a build." Robert bought it on the spot and towed it back to his home in Brick, New Jersey, to start the process of building his dream convertible. Sometime during its seven-year restoration, the Cougar started being referred to by the name of the storm that almost did it in: Isabel.

Taking on this car was no easy task. "I had to reconstruct most of the car's

unit-body. I transplanted a complete floorpan and cowl from a donor car and added fresh inner rockers, two half-quarters, two new doors, a fender, and a trunk lid. What was I thinking? I basically built a new car from a seriously rusty skeleton that remained after the hurricane."

The underside was stripped bare of all suspension parts. "I added a set of Global West frame connectors to tie it all together and to add strength. The wheelhouses needed extensive work as well." The suspension was rebuilt using roller spring perches from Open-tracker Racing. Springs were 620-lb/in units from Grab-A-Trak. KYB shocks were also installed and CalTrac trac-

tion bars were added out back. An Eaton Truetrac gear-type limited-slip differential was used in the 9-inch axle housing to help get the power to the pavement; it was fitted with 3.25:1 gears.

Once the multi-year ordeal of massive amounts of metal work came to an end, Robert could finally lay out a few coats of self-etching primer to the body, to protect it from the Jersey Shore's humidity and salty air. When the body work was complete, the Cougar that he had christened "Isabel" was basted in 40th Anniversary Mustang Crimson Red by Jeff Posey at Denville Bear and Body located in Lakewood, New Jersey.



While that was going on, Robert laid the groundwork for his powerplant for the new ride. "The first part was easy. I took the 351 Cleveland out of the coupe and used that for the basis for the convertible's engine." The block was bored .030-inch over and fitted with forged flat-top pistons, and a set of Australian 302 Cleveland cylinder heads were located. The Aussie 302C heads are favored for their small ports and small chambers, and with some upgrades, they make excellent street performance heads for a 351C. Other highlights include a later Ford Duraspark electronic distributor that triggers an MSD 6AL, working with a custom-built Dial-A-Rev-Limit controller that Robert designed and stashed in the glovebox. A Comp Cams XE274 camshaft and an Edelbrock Air Gap manifold with Quick Fuel SS-750 (Holley 4150 style) carburetor rounded out the major parts of that engine build. Hooker Comp ceramic-coated headers with Magnaflow "no baffle" stainless-steel mufflers and a homemade 409-stainless-steel exhaust system create one thundering symphony out back. Tim Hull at Tim's Automotive Machine Shop of Toms River, New Jersey, handled much of the engine machining.

The engine was backed by the Top-loader four-speed donated from Robert's coupe, and was freshened up with concours detailing from the previous build. Much of the assembly, including wiring harness, instrument cluster, A/C components, upper and lower dash, console, engine, convertible top pump, and differential rebuild were all handled by Robert. The custom glove-soft leather interior was custom made to match the OEM design and is a classy touch. Robert retrofitted a modern 8,000-rpm tach to keep informed of engine revolutions. An air/fuel gauge was added as well. The factory A/C now blows cold and is a plus on hot Jersey summer days.

Other added features include the repro Cougar Eliminator rear spoiler along with an Eliminator hood scoop. "The scoop is an original piece. I customized it with a proper Ram Air cutout that feeds cold air into

a homemade Ram Air air cleaner," Robert explains. A set of Foose Legend 17-inch wheels give Isabel that Pro-Touring look Robert was after.

After years of toiling on his crazy cat project, Robert got the Cougar out on the streets and tore it up with a vengeance. Plenty of miles were put on over almost three years of service. Most car enthusiasts would have been happy with Isabel's formidable setup, but strangely enough, Robert knew he could do better with the powertrain,

Robert wanted a manual transmission in the center of the XR7's plush interior; the Tremec TKO-600 five-speed also provides overdrive.





so he started stocking up parts for a future upgrade. In 2014, the time had come, and the Cougar came back into the garage for a major overhaul.

"I wanted more power and more gears, so I decided to change out her heart and build an even better one," Robert says. From the start of the new engine project, he went in a new direction. "I sourced a new Cleveland block to start the process. This time around it would be a 408-cu.in. stroker."

Due to Cleveland's thin-wall casting, Robert decided to use Hardblok—a fine concrete-like product used in some racing engines to strengthen the engine block. "I half-filled it to allow the top of the cylinders to stay properly cooled, as that's where most of the heat is," he notes. The .030-over block was assembled using a Scat 4340 forged stroker rotating assembly and topped with Trick Flow 195-cc CNC ported heads and an Edelbrock Air Gap intake; a Quickflow SS-750 mechanical secondary double-pumper was reused from the previous setup.

A few other notables were kept from Isabel's first incarnation "I ended up using the MSD ignition again along with my custom rev-limiter and Duraspark distributor. I also kept my

complete exhaust system as it was in great shape, and I loved the tone of the Magnaflows." However, one important change was about to take place.

"I always believed that a true hot rod had to have a stick. I knew I could do better than the Toploader I had, so I ordered up a Tremec TKO-600 five-speed. I couldn't be happier with the setup." Robert also added a custom-made shifter stalk made from a titanium orthopedic "intermedullary femur nail," intended for medical use. "It's the same rod I had in my left femur after I shattered my leg in a boating accident. I felt it was a neat addition to Isabel."

One last change was out back. "With the new transmission and the 0.64:1 overdrive in the TKO, I decided to change to 3.89 gears to help my launch; it also raises the rpm in fifth gear. With the 3.25's I was practically idling at highway speed in fifth!"

Now, with all the changes, Robert and Isabel are ready to take on the Jersey Shore and beyond. "Isabel was the next natural step in my 46-year love-affair with the '69/'70 Mercury Cougar. I always wanted a convertible Cougar and the more elegant XR7 model. Isabel ticked both those boxes.

The nearly seven-year journey was long and I could have picked a better car to start with, but I have enjoyed every minute of it."

"The finished car speaks for itself and has exceeded all my expectations; it's a joy to drive. The 408-inch Cleveland has great power and sounds like poetry when all four barrels are opened-up. It's ran 12.9s at 110 mph at the Old Time Drags over at Englishtown."

Now that Isabel resembles what Robert once dreamed of, he's able to enjoy the fruits of his labor. "I did not set out to build a show car, but my perfectionist nature got the better of me. Isabel is the result. Showing her at car shows near and far is an addictive proposition. Seeing people's reactions and talking with them about my journey is one of my greatest joys in life." ■



The Cougar was "swamped" during Hurricane Isabel and totaled as a result. But, after extensive restorative efforts, it was saved and christened with the storm's name.

SPECIFICATIONS

1969 MERCURY COUGAR XR7 CONVERTIBLE

ENGINE

Block type.....Ford 335-series 351 "Cleveland," cast iron
 Displacement 408-cu.in.
 Bore x stroke 4.030 x 4.000 in (Scat stroker assembly)
 Compression ratio 10.5:1
 Horsepower @ rpm 520 @ 6,400 (est.)
 Torque @ rpm 480 lb-ft @ 4,600 (est.)
 Valvetrain Roller rockers
 Heads Trick Flow PowerPort Cleveland I95-cc runner,
 62-cc combustion chamber, CNC ported runners and chambers
 Camshaft Comp Cams custom hydraulic roller, .620/.626-inch lift intake/exhaust
 234/238 duration, 110-degree lobe separation
 Main bearings King XP series bearings
 Fuel system Quick Fuel SS-750, double-pumper, mechanical secondaries,
 Edelbrock Air-Gap manifold, McRobb HV mechanical fuel pump
 Lubrication system.....Melling, stock volume
 Electrical system Ford Duraspark distributor, MSD 6AL with custom adjustable
 Dial-A-Rev-Limit and Blaster II coil
 Exhaust system..... Custom made 2¼-inch stainless steel with crossover,
 header cutout system, and Magnaflo mufflers

TRANSMISSION

Type..... Tremec TKO-600 manual five-speed
 Ratios.....1st/2.87:1 ... 2nd/1.89:1 ... 3rd/1.28:1 ... 4th/1.00:1 ... 5th/0.64:1 ... Reverse/2.56:1

DIFFERENTIAL

Type..... Ford 9-inch housing with Eaton Truetrac differential
 Ratio 3.89:1

STEERING

Type..... Stock recirculating ball, hydraulic power assist
 Ratio 16:1

BRAKES

Type.....Hydraulic four-wheel disc
 Front: Mustang SN95 Cobra, 13-in disc
 Rear: Mustang SN-95 Cobra, 11.65-inch disc

SUSPENSION

Front..... Stock upper and lower control arms with I-in
 "Arning drop" (a.k.a., Shelby mod), Opentracker roller
 spring perches, I-inch anti-sway bar, KYB shocks
 Rear.....Stock leaf-spring type with Espo competition handling springs, adjustable
 "Stam-bar" anti-sway bar, and Cal-Trac traction bars

WHEELS & TIRES

Wheels Foose Legend
 Front: 17 x 8 in
 Rear: 17 x 9 in
 Tires Nitto 555 G2 Extreme
 Front: 235/45/17
 Rear: 285/40/17

PERFORMANCE

0-60 mph..... Not tested
 1/4-mile ET..... 12.9 sec @ 110 mph (best to date)*

*Owner-derived timeslips from Englishtown's Raceway Park, 2017



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DOUBLE TAKE

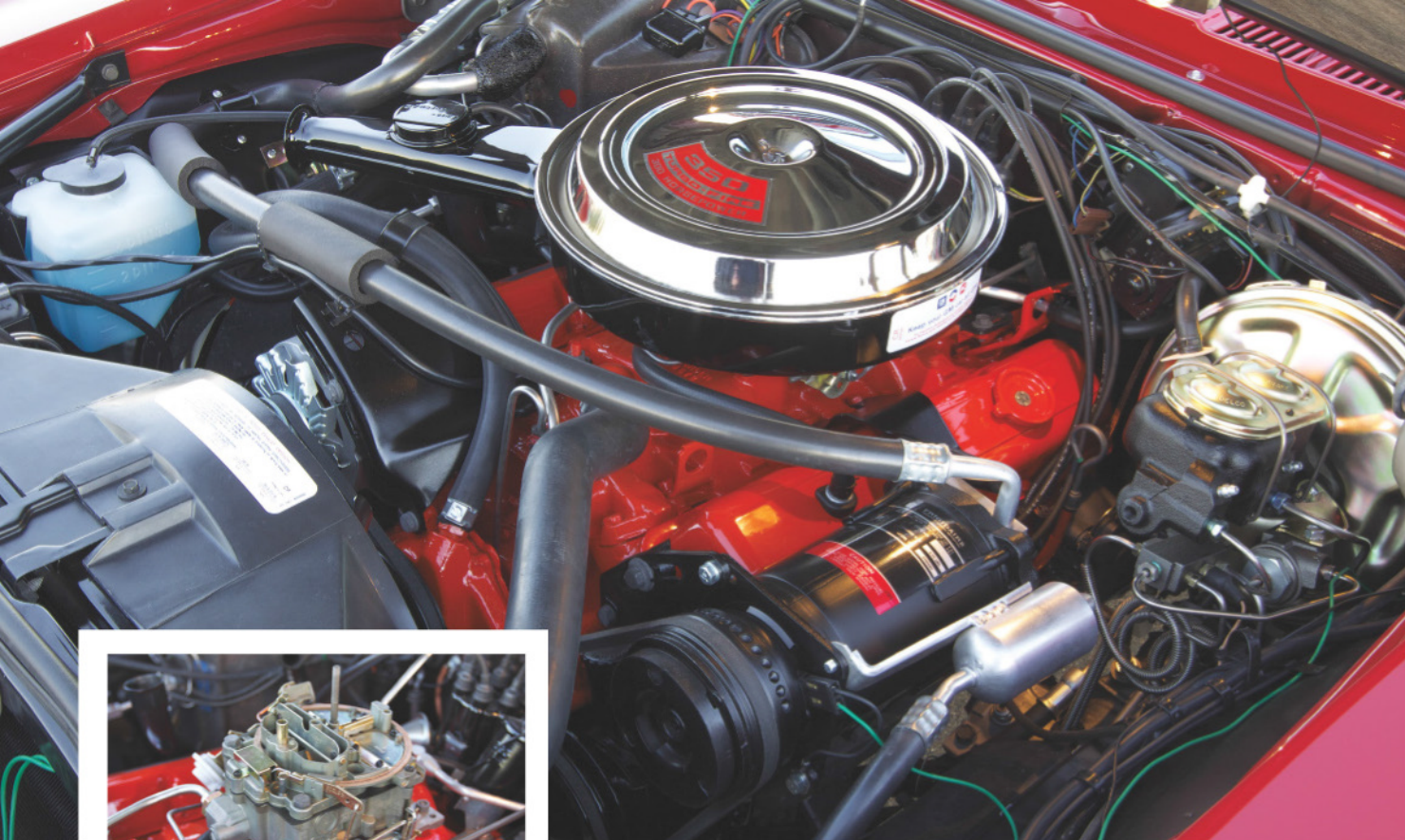
THIS '69 CAMARO SS/RS
CONVERTIBLE REEMERGED FOR A
RESTORATION RE-DO

WORDS AND PHOTOGRAPHY BY JEFF KOCH



EVER LOCK EYES ON SOMEONE and, though you've never met, you're sure that you know them from somewhere? Celebrities have stories like this all the time—particularly when they're mistaken for another celebrity. But it happens to us plebes in the weeds as well. Unsurprisingly, it happens with cars, too. And sometimes it all works out for the best.

Sadly, little is currently known about this '69 Camaro SS/RS convertible's former life or owner(s); the only information that's come to light is that it was built in the Norwood, Ohio, plant in December of '68, was delivered in or



Chevy's base engine for the Camaro SS was a 10.25:1 compression, four-barrel, 300 gross horsepower, 350-cubic-inch small-block. Plenty were built with "nice car" options like automatic transmission and air conditioning.

near Memphis, Tennessee, and was owned by a schoolteacher. "Paperwork was lacking," its restorer, Shaun Price, of Shaun Price Restorations in Gilbert, Arizona, tells us. This may well have been because Shaun's client, owner Al Serrato of Temecula, California, bought a car that was essentially in pieces—torn down by a previous owner who either misplaced or chucked its records.

And like that person you feel you know but you can't remember from where, this Camaro also looked strangely familiar. "We saw the Camaro for sale online in 2011 and '12; the seller had it up there for months as an unfinished project at an exorbitant price," Shaun recalls. "It wasn't abandoned—I think he ran out of money and/or interest, and that was probably the catalyst for sale." Al and Shaun were interested—a factory red Camaro SS/RS convertible is bound

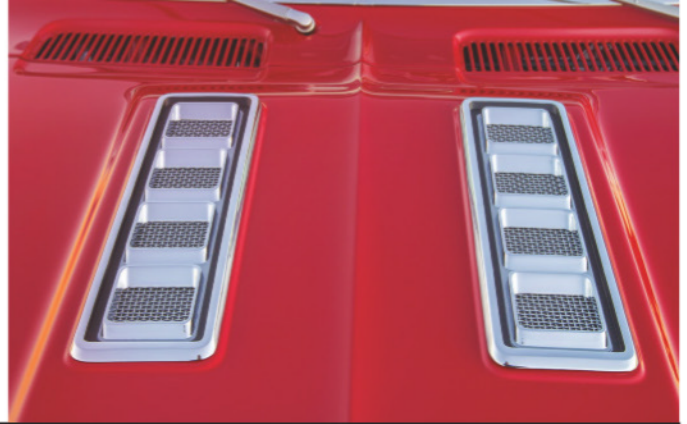
to get the interest of quite a few collectors. But at the \$85,000 asking price, it sat. And sat. Every now and again, the price would drop by ten grand. "And one day," Shaun says, "it disappeared from the site. Either the seller had given up, or it had sold."

Now, Shaun has a neighbor who occasionally flips cars for fun and profit, so haulers dropping cars off there is never a big deal. "He came over and asked if I'd help the transport driver get the car out—it was just a rolling chassis and had no brakes. We get it out of the transporter and the lightbulb blinks on." No fair guessing whether it was this very Camaro they'd been watch-

ing—it was. "My neighbor bought it in... let's call it an emotional moment. He's known for paying too much for things. But Al and I had watched this car for months online, and now it's here in front of me in my neighbor's yard. I mean, what are the odds?"

Shaun now had a chance to look first-hand at the car that he was hemming and hawing over previously. "I could see what we had and didn't have, unlike reading a description in an ad and having to hop on a plane to go look at it. What we saw was a rolling car, fairly complete, but it needed a correct restoration in order to be finished. It had been painted and that's where it stopped. Everything on it was date-coded correctly. All of the panels





Rally Sport package included unique taillamp lenses with horizontal split and separate reverse lamps; Super Sport package included a special domed hood with chrome inserts.

had original date-codes stamped when we got them, so everything was in line—nothing we found was a service-replacement item. Anything that had a date on it lined up with the car. The trunk floor was original, but I bet someone put floors in it; I can't confirm that, though. Whoever did the work on the body and the paint did a nice job."

It was a Camaro like one Al had been looking for. It was all there, all correct and complete. At Al's urging, Shaun pulled the trigger. "I told my neighbor, 'You paid how much? I'll give you ten percent more right now.'" The deal was done, and they rolled it into Shaun's workshop across the street. The goal, as it was with all of Al's cars, was to get it as close to showroom-correct as could be managed.

Combining the SS and RS packages got a respectable amount of equipment and trim goodies. The SS included the special hood with simulated air intakes and an insulation pad, the standard grille would be blacked out with most

body colors, as would the rocker panels below the moldings; SS emblems would appear on the grille, fenders, and rear panel. The SS also included 14 x 7-inch wheels and F70-14 Wide-Oval tires, and the all-important chrome air cleaner lid for the standard L48-code 300-hp 350 four-barrel engine.

Meanwhile, the Rally Sport option provided the "hideaway" headlamp treatment with an alternate grille design, and the taillamp lenses had a single horizontal split, rather than the standard twin vertical segmentations. Reverse lamps moved down into the rear valence panel on the RS.

When the SS and RS packages were combined, the SS emblems bumped out the RS pieces on the grille and tail panel, and the "Rally Sport" badging that would be found on the fenders of a regular Camaro RS (or a Z/28 RS) was also left off in favor of the standard "Camaro" scripts with "SS" emblems beneath, just as they would appear on a

non-RS Camaro Super Sport.

This example of the SS/RS was a highly optioned Garnet Red convertible with red interior. Shaun reports, "It has the matching-numbers engine, transmission, and rear. Well, it has the driveline it was born with, anyway. It's got a 12-bolt 3.55:1 with Posi, because with air and automatic you couldn't get anything as high as 3.73:1." Also included were a plethora of options: air conditioning, tilt steering column, a power convertible top, power windows, space-saver spare, Endura front bumper, console, gauges, fiber-optic lamp monitoring, Deluxe interior, whitewall tires (which were a factory upgrade), and... an AM radio.

"When you ordered the AM radio, you had the option to order a rear-mounted antenna," Shaun explains. "The AM/FM radios had a fixed manual antenna on the front fender. That antenna on the rear fender would make the D80 spoiler package unavailable. I mean, it could have had the





Factory red Comfortweave interior was remade with possibly the last NOS bolt of original fabric from the burned-down factory; there are options galore in here like gauges, tilt wheel, air conditioning, and more.

stereo 8-track, cruise control, and some other foo-foo stuff, but overall it was well-optioned, despite being a base 350-powered car."

All of this was above and beyond the RS goodies (fender striping, hideaway headlamps with washers, the Style Trim group to add a variety of bright-work and black sills, et al) and what was mandated with the SS package (300-hp 350, floor-shift, Turbo Hydra-Matic in lieu of Powerglide, power front disc brakes and lots more).

What was missing? "Let's put it this way: we had parts, it wasn't missing much, and all of the important stuff was there, but the condition of the parts needed to be updated from what we acquired with the car. The quantity of NOS stuff we had to come up with to finish it was staggering," Shaun says.

For example? "The dashpad. It needed one, and the air-conditioned cars have a specific dash pad. Lo and behold, I heard about a guy just three miles north of me who bought an NOS dashpad in the late 1970s—and it was still in the original GM box. And it was for an A/C car! Things like that happen occasionally, but it's not that common. NOS parts are getting ever-more-difficult to find."

And the lug nuts! "They're correct assembly-line lug nuts that were used on those 14-inch SS wheels in 1969 and '70 only. Those things are unobtainable. We paid \$50 for each lug nut—that's \$1,000. For lug nuts! The

guy who sold them to us had a few left afterward, and he ended up selling them for \$100 apiece," Shaun notes.

There's more—even in places you wouldn't think would matter. "The alignment shims are actually GM assembly-line items. Between the shims and the lug nuts, man, that'll send you over the edge. We found what was likely the last NOS red Comfortweave material anywhere, in Detroit. The original plant that made it burned down years ago, and reproduction stuff doesn't have the same pattern. The seatbelt webbing was tough to find NOS, too."

Shaun continues, "Ultimately, every component had to be disassembled and redone, or else replaced. Stuff that the previous owner had done was junk—most of it either didn't work right or simply hadn't been addressed. This car was one of those where you had to sit there and go through everything piece by piece for it to work correctly in the end."

Even the decent paint was given the once-over. "I had to disassemble the car, then painted both underneath and the firewall; the previous painter painted the firewall and chassis the same glossy red as the body, and I had to re-do it the way the factory did it [in black]. I also fixed some body chips and deficiencies along the way. Also, doing the blackout on the rockers, I made sure that it faded with a fuzzy line, like the factory did on the assembly line. I replicated that off an original

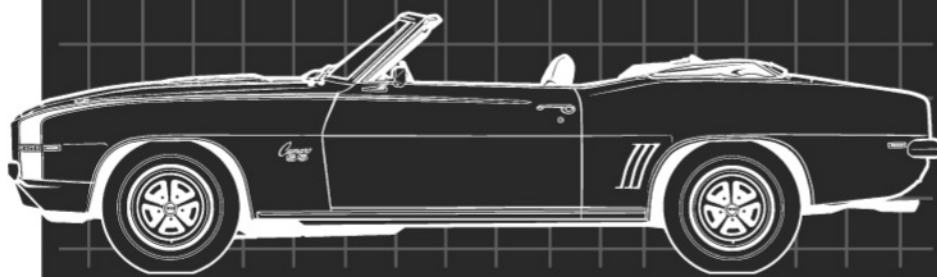
car too, another Norwood car. We also repainted the hood and decklid thanks to poorly stored parts, where something nicked or chipped the paint.

"On the original convertible top rear window, there should be a manufacturer's logo and a date code that the reproductions don't have. I found an original-top car, photographed that logo, and had that and the build date reproduced on the rear window," Shaun says. There are even factory-style markings on the treads of the tires, which you'd think would be the first thing to wear off. Except...

"Al keeps this car in the lobby of his office," Shaun says of the Camaro that has taken pride of place in its owner's eyeline. It's been there since 2014. The good news: this as-new SS/RS '69 Camaro convertible is being enjoyed, even if it's not wearing those tire markings off. ■

SPECIFICATIONS

ILLUSTRATION BY ROBERTA CONROY



1969 CHEVROLET CAMARO SS/RS CONVERTIBLE

PRICE

Base price.....\$2,852
Options on car profiled Super Sport package, \$507; Turbo Hydra-Matic automatic transmission, \$585; Rally Sport package, \$131.65; air conditioning, \$376; tilt wheel, \$45; power steering, \$95; power brakes, \$42; whitewall tires, \$32; console, \$54; AM radio, \$61; power windows, \$105; front disc brakes, \$22; tinted glass, \$31; gauges, \$90.

ENGINE

Type Chevrolet "small-block" OHV V-8, cast-iron block and cylinder heads
Displacement 350 cu.in.
Bore x stroke 4.00 x 3.48 in
Compression ratio 10.25:1
Horsepower @ rpm 300 @ 4,800
Torque @ rpm 380 lb-ft @ 3,200
Valvetrain Hydraulic lifters
Main bearings Five
Fuel system Rochester Quadrajet four-barrel, mechanical pump
Lubrication system.....Pressure, gear-type pump
Electrical system 12-volt
Exhaust system.....Dual exhaust with transverse cross-flow muffler

TRANSMISSION

Type.....GM Turbo Hydra-Matic 350 three-speed automatic
Ratios.....1st/2.48 ... 2nd/1.48 ... 3rd/1.00 ... Reverse/2.08

DIFFERENTIAL

Type.....Chevrolet 12-bolt housing, Positraction
Ratio 3.55:1

STEERING

Type.....Recirculating ball-nut, semi-reversible with hydraulic power assist
Turns, lock-to-lock 2.8
Turning circle 37.5 ft

BRAKES

Type.....Hydraulic disc/drum with vacuum power assist
Front: 11-in disc / Rear: 9.5 x 2.0-in drum

SUSPENSION

Front.....Independent, unequal length A-arms; coil springs; telescoping shock absorbers; anti-sway bar
Rear.....Parallel leaf springs, telescoping shock absorbers

WHEELS & TIRES

Wheels Styled stamped steel, drop center
Front/Rear: 14 x 7 in
Tires Bias-ply, white-stripe
Front/Rear: F70-14

PRODUCTION

Chevrolet produced 16,519 Camaro convertibles for the extended 1969 model year. Chevrolet also produced 37,773 RS and 36,309 SS Camaros for the year, but no records of how many SS/RS cars exist, regardless of body style.

PERFORMANCE

0-60 mph.....6.4 sec
1/4-mile ET 15 sec @ 93 mph



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BEECH PARTY

THE SUPERCAR REUNION RETURNS TO KENTUCKY

BY CHUCK HANSON • PHOTOGRAPHY BY CHUCK HANSON AND DENNIS CUMBY

“

AFTER A COUPLE STABS AT THE GAS PEDAL and a twist of the key, the Hemi came to life and trumpeted its presence. Even though the ambient temperature was already in the 80s, the impatient pachyderm required deft manipulation of the throttle as the moving

bits all greeted one another and waited on the engine's temperature to build a bit. It wasn't long, though, before the clamor settled into a raucous, raspy, racket and the engine announced it was ready.

With the newly invigorated mechanical mastodon filling the engine bay of his '69 Plymouth GTX, Al Galdi had hauled it to Bowling Green, Kentucky from New Jersey to send it down the legendary Beech Bend track, hoping his efforts would be rewarded with a solid time slip... and maybe a win light or two. Al had challenged the track before, attending the annual Supercar Reunion multiple times with various representatives drawn from the General's camp.

But the GTX was a whole different animal for Al. Not only was its corporate badging from a cross-town rival, its propulsion system boasted mythological status and was revered in performance circles by all... regardless of their brand affiliation.

As he nosed the Plymouth towards the staging lanes, any second thoughts Al may have entertained about hurting the

expensive hardware were quickly dispatched. The dyno had confirmed its potential. It was time to find reality.

The Hoosier slicks screamed their tortured protest as Al lit 'em up in the burnout box, building heat for a better bite of the track. In the other lane an ultra-rare Motion Phase III Camaro went through a similar regimen as it prepared for the face-off. Both cars inched their way into the staging beams before the rpm mounted in preparation for the 'tree' to say when. The yellow lights flashed, and Al launched his guided muscle just as the final yellow bulb dimmed and the green bulb blazed.

Although it was concealed behind his full-face helmet, a mile-wide grin plastered itself on Al's mug as the Hemi pushed him deep into the seat. None of his GM rides possessed the same impressive punch, and he knew immediately that the run was a good one.

The grin broadened more as he picked up his time slip; an extremely stout 12.18 @ 116.30 mph was the verdict. After finagling with the timing and some tire pressure adjustments, the ET would eventually dip to 12.02, but the heat of the day continued its conspiracy, and finding the 11s at Beech Bend would elude him. But with a day of fast fun ahead, that irrepressible grin would not.

”

AUTOMOTIVE EVENT LONGEVITY IS SOMETIMES LIKE chasing an elusive time slip—the overall combination has to be right to enjoy success, and few events can boast a record of 25 years. This year's gathering of supercars and factory muscle celebrated that silver milestone in fine fashion with an assembly of ultra-rare iron and owners who weren't afraid to flog their machines as Detroit originally intended. Apparently, the formula for success is as simple as it sounds.

An early morning stroll through the pits yielded a trove of rare specimens that included several COPO Camaros and Chevelles, "tuner" machines from the Yenko, Motion, and Dick Harrell performance outlets, an amazing group of three '69 ZL-1 Camaros, and plenty of other factory-built, high-horsepower players.

After attending several Reunions over the past quarter-century, many of the participants' faces and machines have become familiar, and long-standing friendships have been formed. This group's affinity for speed, power, and good times is what brought them all together, and 25 years later it's what keeps them together still. The congenial brotherhood was evidenced by the food, fellowship, and tall tales shared at the "meat 'n' greet" barbecue the night prior to hitting the track. But staged side-by-side on the starting line the next day, competition brought out the serious side of those friendships, and stone-faced focus replaced the earlier affability.

Calling this event a Supercar Reunion, however, is a bit of a misnomer. While there are plenty of factory and tuner-built supercars in attendance, the event is open to any brand and anyone who wants to bring their ride to Beech Bend to make a few passes down the fabled corridor of competition. Indeed, old race cars, restomods, and modern-day muscle cars are just as welcome at the event as the vintage iron, with the only prerequisite being a desire to have a good time.

Two levels of competition are part of the program: Supercars compete in a separate bracket while another bracket is open to all others. But enlisting for a spot on either ladder is not a mandate. Many of the participants are satisfied to just make a few passes, collect their time slip(s), and then park their rides in an impromptu car show. The cautious approach provides spectators with an opportunity to get up close to inspect many machines that are rarely seen today, take detailed pictures of the cars, and speak with their owners to further their education.

Looking back over the past 25 years, the Reunion has provided plenty of exciting drag strip action not only for the core group that clustered together to initialize the event, but also for all the competitors who have taken part in the excitement since and become part of the family. No doubt, the Supercar Reunion has found the right combination for event longevity, and we all look forward to the next gathering and another quarter century of high-octane fun. To learn more and lock in next year's event dates, go to facebook.com/Supercar-Reunion. We'll see you there!



Running on alcohol, Scott Brohammer's GTO ragtop knocked down some 9.80s even though the car repeatedly overpowered the track!



Another qualifying pass found the '69 Camaro of Freddie Byars up against the '68 GTO convertible belonging to Scott Brohammer from St Louis, Missouri.



Pedal down and wheels up is the way Jamie Jarvis launched his '55 Chevy gasser. His reward was a string of mid-10 passes at over 125 mph!



Old race cars made their presence known at Beech Bend, as Greg Wenz's '68 Camaro ripped off 9.90s while Jeff Cleveland's '65 Chevelle cranked out a string of 10.70s.



Reunion festivities kicked off with a southern-style barbecue by Jay Ball, who also competed with his '69 COPO Camaro.



These three '69 ZL-1 Camaros formed a triumvirate of terror for the weekend at Beech Bend. The caretakers of the revered aluminum-engined F-bodies are owners (L to R) Canadian Tim Schell, Ohioan Don Martens, and original owner, Ken Barnhart.



In an epic father/daughter tussle, Todd Patrick took on his daughter Kennedy in his impeccably restored Chevelle convertible, but came up short on the big end despite his starting line advantage.



An ultra-rare '68 Dick Harrell 427 Nova, belonging to Roland and Cheryl Paulsgrove, made a few exhibition passes before being parked for the inspection and edification of spectators and fellow competitors alike.



The motto of the Buick GS Club of America is "Going Fast with Class!" and Kentuckian Justin Carnes did just that with his '70 GS 455, running consistent 12.30s at 108 to notch a runner-up in the Musclecar bracket.



In an all-too-familiar contest, the Clary clan lined up for the Supercar title. This time it was a father/son contest with young Drew taking dad Rob to school with his Yenka Deuce.



A pair of '69 Chevelles wheeled by David Povio and Jeff Losapio (far lane) faced off on a qualifying pass, with the fellow Floridians running 12.80 at 109.1 mph and 12.73 at 109.4 mph respectively.

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The '69 Nova belonging to Adam Byers sported a 383-cu.in. small-block and TH400 transmission, and went through the traps doing 11.70 at 115 mph—good enough for a semi-final finish.



Each event affords the opportunity to name the SCR Person of the Year based on contributions made to the event as well as the overall hobby. This year's recipient of the well-deserved award was Dru Diesner.



Shar Shafei brought his recently refreshed, aluminum-headed L89 Chevelle SS 396 to Bowling Green to test its mettle. He was rewarded with a 13.30 time slip, but fading brakes kept him from further testing.



First- and second-generation Camaros slugged it out in qualifying, as Randy Goodwin's '70 Z28 went head-to-head with Rob Clary's '69 Yenko.



A quick look down this lineup revealed a '69 ZL-1 Camaro, a '68 Dick Harrell 427 Nova, another '69 ZL1 Camaro, a '69 big-block Nova, a '69 COPO Camaro, and a '69 COPO Chevelle.



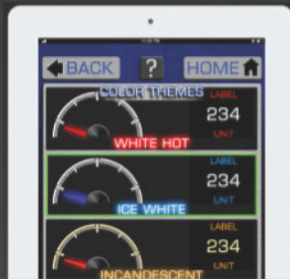
The Musclegar finale saw Justin Carnes' Buick GS up against the '65 Chevelle of Jeff Cleveland. The Chevelle prevailed with an 11.48 clocking to the Buick's slower 13.48 and took the win and bragging rights.



Kennedy Hamilton (Patrick) is a multi-event participant, and her '69 Chevelle gets quicker and her driving gets better each year. The silver "post" car got down to the tune of 11.40 at 114 mph all day long. ■

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EARLY MUSTANG HEADLINER INSTALLATION

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WORDS AND PHOTOGRAPHY BY BARRY KLUCZYK

WHEN IT COMES TO RESTORATION projects, installing one of the typical hanging or bow-style headliners found in most muscle-era vehicles is a challenge many inexperienced enthusiasts would rather not attempt.

It's not an unwarranted concern, either. The prospect of a sagging or wrinkled result is enough to ward off many. And let's be honest: they weren't all perfect when they rolled out of the factory. Wrinkles, especially around the sail panel area between the quarter windows and rear window, were often a fact of life, as the task required deft manipulation of the stretched material and required adhesives to achieve the desired smooth, taut appearance—a lot to ask of people working on a fast-moving assembly line.

Fortunately for the DIYer, these headliners are not particularly complicated in their design, but achieving a smooth, taut installation is unquestionably a challenge involving patience and great attention to detail. We recently followed the procedure on a 1966 Mustang GT 2+2 under restoration at Motorcity Grind, a Detroit-area resto-

ration and restomod shop specializing in Fords.

While we wouldn't go as far as saying they made it look easy, they nevertheless demonstrated how straightforward the project could be for an enthusiast contemplating the project at home.

"The key is realizing you'll be attaching, re-attaching, pulling and stretching the material continuously during the installation," Motorcity Grind's owner, Jim Chatas, says. "You don't simply spray the adhesive, push the material in place, and leave it. You've got to work the material until it's smooth at all the edges."

As seen in the accompanying photos, the headliner on the project Mustang was installed in a car with no interior and none of the glass.

"With some cars, you can do the job with the windshield and back glass in place, but it's much tougher to get that taut appearance," Jim says. "On these early Mustangs, however, it's really important to do the job without the glass in place, because the headliner material wraps around the front and rear glass openings."

On some other vehicles such as GM's A-bodies, for example, the roof panel has channels around the edges where the headliner material folds over in order to keep it taut. Those edges are covered by the interior trim and are a couple of inches away from the windshield and rear glass, allowing room to get one's fingers in there to fold the material into the channels.

That's not the case with the early Mustangs, and according to Jim, the headliners in fastback models such the 2+2 featured in this project are surprisingly easier to install than the hardtop models.

"They're a little more forgiving at the rear, because of the overall shape and the pillar trim," he says. "The hardtop headliner takes more time and much more attention to detail to get it wrinkle-free, because of the geometry of the hardtop pillar, but it's not too bad."

That may be easier said than done with an enthusiast's first headliner, but it's within the grasp of anyone with the inclination, an eye for detail, and patience.

"Take your time and don't get frustrated when it's not perfect right off the bat," Jim advises. "You just have to work the material until it's done. It takes time and finesse to work out the wrinkles and get the material smooth and tight. You'll get there and it will look good."

After following this project, we agree. A headliner installation shouldn't be intimidating, but we did mention patience, correct?

Good. Because you'll need it. That, and an eye for detail, are the crucial elements for success.



1. The project car is a 1966 Mustang 2+2, fresh out of Motorcity Grind's spray booth and wearing new Candy Apple Red paint. Tackling the headliner before the glass and other interior components are installed is the smart move for most vehicles; you'll definitely want to perform this job before the glass is installed on a Mustang. **2.** Here's the original headliner. It was pretty gross looking after more than half a century, but largely intact. **3.** Importantly, Motorcity Grind did not remove the bows from the old headliner. Each is specific to its position and color-coded from the factory, so they were left in place as references for the new headliner.

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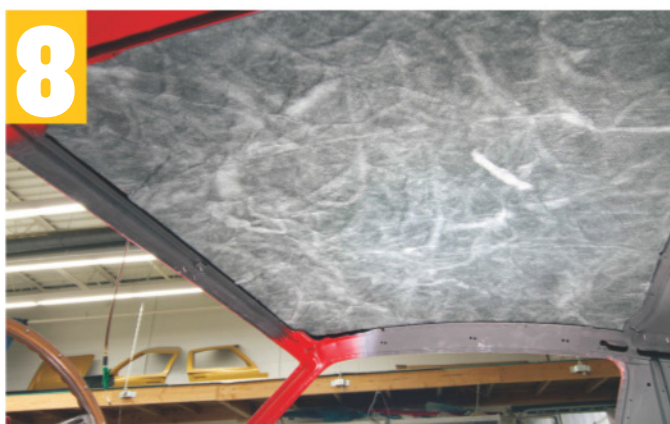
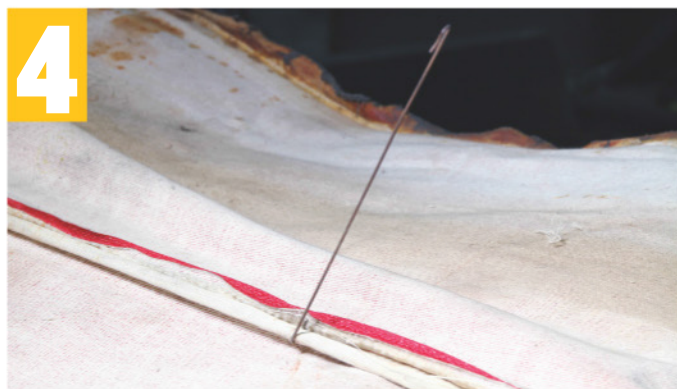
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4. There are also a couple of wire clips, known as headliner bow retainers, that help locate the headliner at the rear. It's important not to discard them and note their relative position on the original headliner. **5.** The new headliner from TMI is a faithful replica of the original "Moonskin" grain headliner, priced around \$70. It's a good practice to let the headliner lay flat for a while (overnight is best) prior to the installation, so that creases or wrinkles that occurred during shipping will work themselves out. **6.** The first step in the installation involves sliding the original headliner bows into the sleeves (known as listings) in the new headliner. It's vital that the bows are returned to their original positions.



7. Next, the centerlines of the windshield and back glass openings were measured and marked to serve as references for centering the headliner, which will help ensure adequate material overlap on the left- and right-hand sides. **8.** Prior to installing the headliner, new, reproduction insulation was glued to the roof. A pre-cut piece for the fastback roof costs about \$30. **9.** To help locate the mounting holes for the inside mirror, visors, and so on, after the new headliner is in place, some of the screws for them were installed. It's easier to slit the material and poke them through rather than trying to find the respective holes when they're covered.





10. Installation begins with the rearmost bow, which simply pushes into retention holes in the roof. It's easier to install left- and right-hand sides with the bow hanging down. Afterwards, simply rotate the bow upward, until it snugs itself against the roof.



11. For flexibility on the assembly line, there are a couple of holes on each side of the roof for the bows. With the new headliner, it doesn't really matter which holes are used, but the bows can be switched between them if the fitment isn't quite right. Most professional installers will note which holes were used with the original headliner and start with them again.

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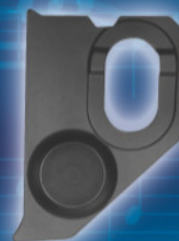
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12. With the bows in place, the bow retaining clips are installed. There are two, and they prevent the rear of the headliner from moving forward. The clips are simply pushed into the listing material around the rear bow, and then clipped into the roof. **13.** The next few steps illustrate the importance of performing this project without glass in the car. The headliner material on early Mustangs wraps around the windshield/rear glass opening channels. Here, Jim Chatas pulls the front of the headliner around the windshield channel. Clamps are used to hold it in place until it's time to glue the material. **14.** With the front of the headliner mocked up, the same is done at the rear window opening. A couple of inches of overlap is necessary to provide sufficient room to clamp the material in place and hold it there after it's glued.



15. On the inside, sections of old, cut-down windlace are used to temporarily hold the headliner in place prior to it being glued. It not only helps ensure the desired taut appearance, but also helps identify areas at the corners that may need small slits or cuts on the edges of the material to create a flat, smooth look at the pillars. **16.** It's time to adhere the headliner, and for that, Jim prefers brush-on cement, because it doesn't have the overspray risks of a spray-on adhesive. It starts with brushing it on the window opening and allowing it to sit for a few minutes. **17.** After that, adhesive is also applied to the headliner itself. Again, a couple of minutes of flash time is required before mating the headliner with the roof.





18. The adhesive bonds the headliner almost instantly to the roof, so moving quickly and deliberately is essential to getting it in position, all while pulling the material tightly to ensure a taut, smooth appearance inside. **19.** The clamps are again used to hold the material in place while the adhesive sets. With the brush-on cement, it only took about 30 minutes. After that, the excess material was carefully cut away from the window channel, leaving an approximately 1-inch perimeter of the headliner material wrapped over the channel. **20.** Next, the same adhering steps are applied to the door sides of the headliner, with the windlace holding the material in place.

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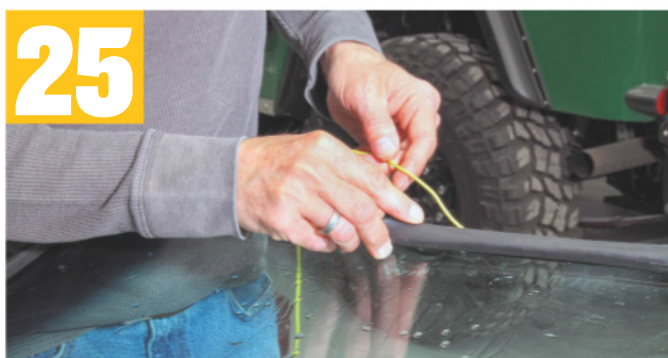


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21. Again, minor trimming at the corners is necessary to create a perfect fit. It's important to work slowly and methodically here, making small cuts until the material fits perfectly. **22.** The installation is looking good, but still has a few wrinkles to work out. With these early Mustangs, the pillar trim ends up covering much of the bottom areas of the headliner material, so perfect smoothness isn't as critical. **23.** With the headliner adhesive left to cure overnight, the project moves to the installation of the front and rear glass, so that the trim can be installed inside the car. It starts with installing new molding retention clips on the window channels' small posts.



24. Next, new seals are installed on the windshield and rear window. **25.** Rather than using piano wire to help secure the seal within the window channel, Jim prefers a length of electrical wire, which he finds easier to work with, particularly in the window corners. **26.** With an extra pair of hands, the windshield is carefully lowered into the opening. It's the same procedure for the rear glass.



27. The wire is pulled out of the seal, allowing it to overlap the channel lip for perfect sealing. **28.** There is still some detailing to finish up around the edges, but that will come with the installation of the interior trim. From the standpoint of the headliner installation, it's a finished project—and one that renews the appearance of this vintage Mustang 2+2. ■



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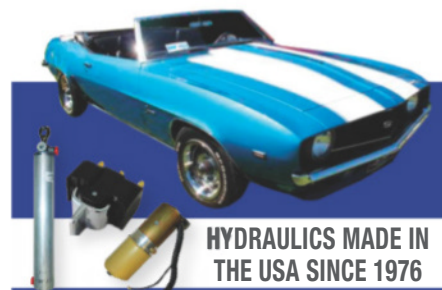
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1972 **CHEVROLET** EL CAMINO **THE UNINTENDED RESTORATION**

**THIS PROJECT SUGGESTS THAT THE TIME OF THE MUSCLE
TRUCK HAS COME AGAIN**

BY DAVID CONWILL • PHOTOGRAPHY BY MATTHEW LITWIN AND DAVID CONWILL • RESTORATION PHOTOGRAPHY BY ROGER PETERSON



AMERICA HAS ALWAYS BEEN TOO RICH FOR A CAR LIKE THE Chevrolet El Camino, Ford Ranchero, or Dodge Rampage. The car/truck hybrid is very popular in Australia, where it was invented in the 1930s, and is popularly known as the “ute” —short for “coupe utility.” Originally, they were simply coupe bodies with a slab-sided pickup box where the trunk would be on a regular coupe. That was a common home-built modification even before, but the factory-built examples proved highly successful. Down Under, where things are a lot more rural and the economy has never been quite as robust as in the U.S., they made a perfect solution for one-car families.

Here, if the family needed a pickup, it was likely to be a full-blown half-ton model, supplementing the family car. Still, that demand was not very great even in itself, as America’s population was majority-urban by 1920 and the family farm steadily gave way to larger operations in the ensuing decades. It wasn’t until American carmakers made pickups as luxurious as passenger cars that they started selling in their biggest numbers—and in that way, they are essentially the American

equivalent of the ute, combining car comfort and pickup utility, but in a heavy-duty, often 4x4 package.

Australia, of course, does have pickups, and America has had its utes. Given the reverse-ute heritage of the modern pickup, however, it’s perhaps more interesting to view an SS 396 El Camino as akin to the 1990–’93 Chevrolet 454 SS muscle truck than the Chevelle on which it is based. In today’s more pickup-centric car scene, the El Camino is more relevant than it ever was, and Roger Peterson, of Osage, Minnesota, who restored this one, was way ahead of the curve on them. He’d been tracking this one for years before it came up for sale.

“I’ve known about this car since 1986 or ’87. The car was actually bought by my neighbor when I was a kid. Later, it passed to another owner who had it painted in ’90 or ’91 and he had it until I got it in 2013.”

That other owner, named Bruce, was a friend of Roger’s, and he got to work on the El Camino during the time it was his, including swapping the Positraction unit from his race car into the 3.31:1-geared 12-bolt of what was then Bruce’s



1. What started out as a simple front-clip swap and repaint wound up revealing a lot of hidden rust damage. Ultimately, Agathers Kustom Autobody would replace the quarters, rockers, and tailgate—plus repair the doors. Only the roof skin was left intact.



2. The original LS3 402-cu.in. V-8 and TH-400 three-speed automatic had been rebuilt not long before the accident. Originally rated at 245 net horsepower, the engine was bored out to 408-cu.in. and treated to a Melling cam and forged pistons, among other things.

3. After an unsuccessful attempt to track down replacements, Agathers repaired the original doors of the El Camino. The passenger-side door was damaged from the deer impact, and both doors had suffered from rust damage—a fate common to cars native to Minnesota.



4. The car's exhaust system is, in a roundabout way, the reason for the entire restoration, as it was a deer strike on the way to the exhaust shop to have the three-inch stainless pipes and Magnaflow mufflers fitted that revealed the rust damage.



5. Body damage notwithstanding, the mechanical parts of the car were generally good. Historical preservation and simple good sense dictated not removing and replacing anything that was within spec. Things were simply cleaned and repainted as necessary.



6. Roger was adamant that no vinyl stickers would be used in his car's exterior scheme. The white stripes, then, were outlined in paint, by hand, a painstaking process that naturally was a greater expense but has paid off in authenticity and satisfaction.



7. Because of the excellent care the car had received over the years, the interior wasn't even pulled down completely. A faulty amp gauge was replaced, as was the steel dash itself, because the original had been cut for a non-original radio with cassette player.



8. After being stripped with 36-grit on an orbital sander, the body was skimmed in 3M Platinum filler, followed by six coats of primer, three coats of paint, and three of clear—all Axalta. Later, the original stainless-steel trim was straightened, polished, and remounted.



El Camino. Little did Roger know, he'd eventually get the Posi back, along with the car now wrapped around it.

"I did some carpentry work for Bruce, and we traded," he says. Roger didn't set out to restore the car, either, as Bruce had already done things like having the original 402 rebuilt and hopped up, circa 2000, by Lynn Johnson at Auto Value in Park Rapids, Minnesota, which happens to be directly across the street from the lot where the El Camino was sold.

The process involved a 0.030-inch overbore (the nominal 396, which was really a 402 from Chevy in '72, is now 408 cubic inches), Sealed Power forged-aluminum pistons, a Melling hydraulic camshaft, a Pertronix electronic ignition, and Hooker Super Comp stainless-steel headers.

At the same time, Scott McCaren rebuilt the TH-400 transmission. Coincidentally, Roger is friends and neighbors with Scott's brother, Steve—in fact, it would pan out that most of the folks who worked on this car knew it and one another.

"Everybody who has worked on it, besides the paint guy, knew the history of the car," Roger says.

It proved an ideal informal team that combined well to do the car justice in its unintended restoration—emphasis on unintended. While on a trip to have the car's exhaust system changed, a deer bounded out in front of Roger—too suddenly for evasion or brakes. The deer managed to tag not only the nose of the car, but also the passenger's side, leaving it drivable but mangled.

"It had been hit in the right front grille and bumper; the

collision pushed the fender into the door. The deer got the grille, then spun around, and got the quarter panel too."

Roger accepted an estimate to have the damage repaired back to driver status, but then the car sat, "probably for three or four years in my shop" before he decided to take charge of the project directly.

He found Agathers Kustoms Autobody in Perham, Minnesota, which was more than up to the task. As things came apart for repair, it seemed that the injury had come at a fortuitous time—there was a lot of hidden decay. The car proved to need inner and outer quarter panels, rockers, and a new tailgate. It also could have used new doors, had they been available.

"We couldn't find any doors, so they repaired the ones we had. The guys are just magicians with sheetmetal," Roger notes.

With the car undergoing such complete bodywork, there came the question of color. Roger elected to stick with the existing black, rather than return to factory original.

OWNER'S VIEW



I just planned on driving the car because it was a nice driver. I did some cosmetic things to it, got it fixed up pretty nice, and I was going to Detroit Lakes for exhaust, and I hit a deer with it. That's where it all started. I got the new exhaust put on it, brought it home, and the car just sat. I went and got estimates on it, but the guy never started work. I've got a 40 x 50 shop. It's not a Jay Leno shop, but it's pretty nice. So, I started checking around for a body guy. Initially it was going to be a whole new front clip and paint the car, but once we got into it, it needed quarter panels, inner quarter panels, rocker panels, and a tailgate. —*Roger Peterson*

"The car originally was Placer Gold with a white-vinyl top. It was black when I got it and was blue back in the '80s." Roger also elected to have a white stripe hand-painted by the guys at the body shop. At this point, the car has been black longer than it was gold.

The suspension and brakes were left all original but checked and confirmed as within specification.

"It was a full, on-frame restoration. We never completely gutted the interior, but otherwise we went through everything on the car," Roger says.

Inside, there are slight deviations from factory-spec, but some appear to date back to when the car was new — likely concessions to "parts on hand" when trying to meet production quotas. Others were made by previous owners and were insufficiently obtrusive to warrant correction.

"The speaker boxes were in the car when I got it. I just left them in there." There is an aftermarket AM/FM/Bluetooth radio, too, but the sweet sound of the three-inch stainless exhaust running through Magnaflow mufflers is the preferred soundtrack while driving.

Similarly, what was originally a bench-seat, column-shift car now sports buckets and a console. Further details Roger doesn't plan to change, even while he attempts to conserve the car's history.

Recall transmission-rebuilder Scott McCaren's brother, Steve, a neighbor of Roger's in Osage?

Roger reports, "Steve still has the factory bench seat for this car and the steering column — which he's going to give me back. It's going to stay how it is, but if [those parts] are gone, you'll never find them again, you know?"



That's the original LS3 402 in there, fully rebuilt and bored out to now displace 408 cubic inches.

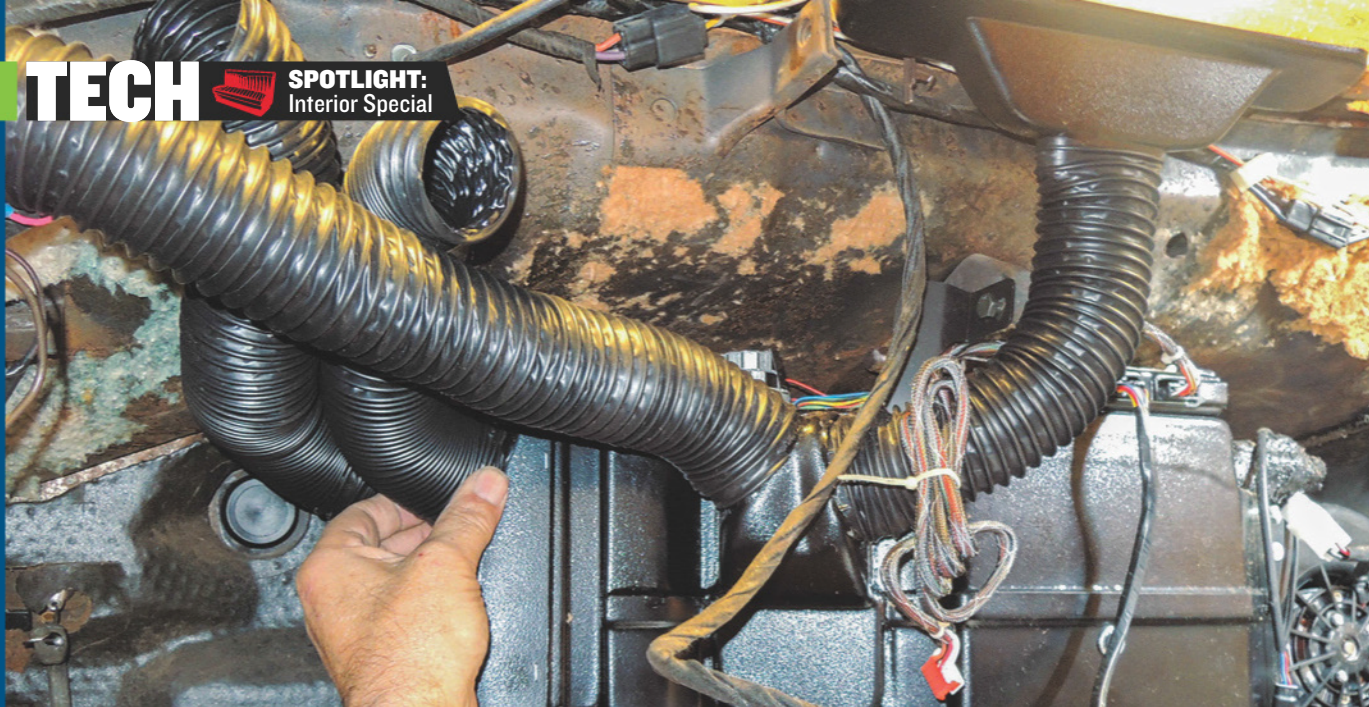


Don't let the bedliner fool you. The El Camino's days being used as a truck are over. The straight body, mirror-like black paint, and warmed-up 402 mean that the only hauling the big-block ute does now is tail.

In fact, conservation now seems to be the name of the game. Although purchased as a driver, restoration has made this El Camino a bit too precious to drive—not least of which because of the dramatically increased values of restored, big-block intermediates these days. Roger has only put around a hundred miles on the car since restoration, and he permitted us to take the wheel for a bit on the day of photography.

We guarantee that there is nothing like torque to put a smile on your face. It did ours. Maybe it's time to seek out an El Camino for yourself and restore it. ■





TO AIR IS HUMAN

KEEPING A CLASSIC COOL WITH A RETROFIT A/C SYSTEM

WORDS AND PHOTOGRAPHY BY CHUCK HANSON

OUR LOADED LATE-MODEL DAILY DRIVERS have us so accustomed to hitting the highway with their full complement of comfort and convenience options. Who would imagine anything less... even in our classic muscle machines?

Oh sure, cruise control, power steering, brakes, windows, and locks are all niceties that we all love to have, but topping the list of inarguable items is climate control. After all, our homes, offices, stores, restaurants, and nearly anywhere else we spend our time are all climate-controlled cocoons enabling us to go about our various tasks in comfort. Why should our classic cars be any different?

Unquestionably, the rising demand for retrofit systems that could be installed in hot rods, modified, and vintage vehicles gave rise to companies that could provide the needed parts and expertise to help us keep our cool, regardless of the ambient temperature. Vintage Air was one of the first to address the need and has remained an industry leader since 1976, when the company first brought its systems to market. Today, Vintage's Sure Fit systems provide for a custom installation into virtually any vintage vehicle, allowing the owner to enjoy the benefit of cruising in comfort.

Although any vintage vehicle that rolled off the assembly line without A/C is a prime candidate for a retrofit, it's also justifiable for vehicles fitted with factory A/C that lack the necessary parts to maintain functionality. The systems from Vintage Air take advantage of updated hardware by combining the heating and cooling components into a compact module that tucks neatly under the dash, and in

some applications, also eliminate the exterior items found on the firewall.

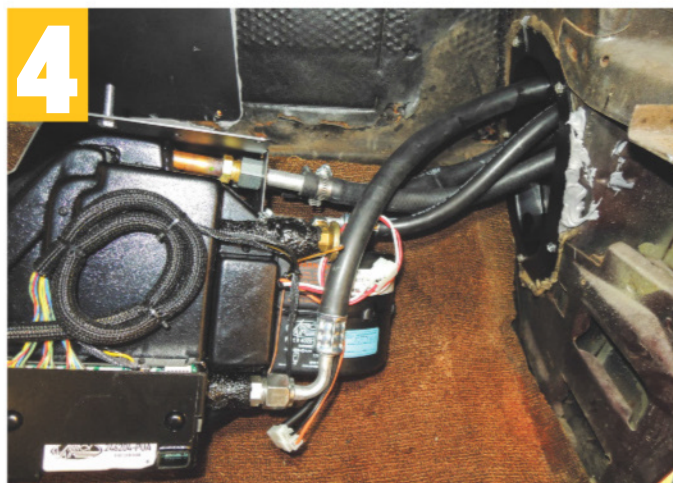
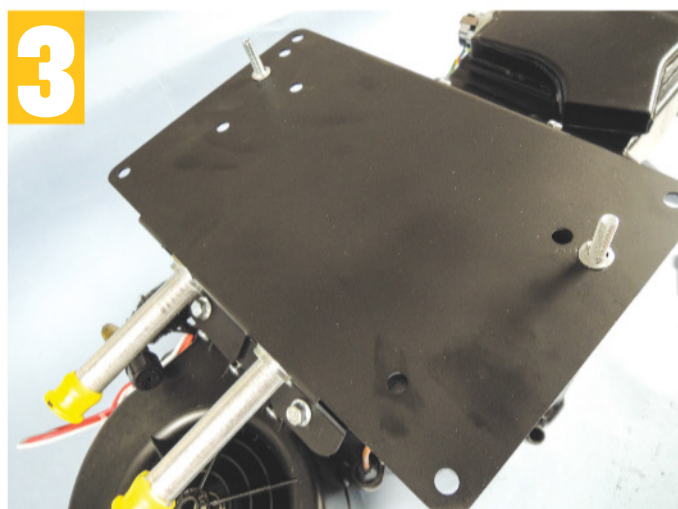
Additionally, they are compatible with current components; the sticky control cables and cracked, leaking vacuum hoses found on the original systems have been eliminated and replaced with electronic switches and servos for trouble-free operation. And finally, they are designed to function with the current crop of refrigerants, making them easy to service and also environmentally responsible.

While the Vintage Air systems are complete, they do require a fairly high mechanical skill set and some tools that aren't normally found in the toolboxes of most home mechanics. In anticipation of those situations, Vintage Air has partnered with a nationwide network of shops, each one capable of selling and installing their systems.

We decided to tackle a Sure Fit installation on our own, however, on a '70 Chevelle. Although some of the components and procedures are endemic to the Chevelle application, other vehicles will require a similar strategy and hardware. All installations, however, will require specialized tools and equipment that can be farmed out to local shops capable of meeting your needs.

As projects go, this one is not likely accomplished with a weekend-in-the-driveway and a 12-pack, unless you're especially adept and everything progresses perfectly. After a couple full days on the task, we still needed a few extra after-work evenings to complete the job, which seems to be a reasonable expectation. Once completed, however, the first cruise with a cool breeze blowing out of the dash quickly convinced us that all the effort was certainly worth it!

1. The compact cooling/heating module fits under the dash, and also incorporates new ducts and hoses, wiring, mounting plates, and a control panel. Electronic switches and actuators eliminate troublesome cables and leaking vacuum hoses. **2.** Our first steps involved removing the factory dashboard, heater box, and blower motor. Kit assembly begins by running hoses for both heating and cooling through the firewall using special supports (this one fits in the original blower fan hole) that assure proper routing and placement. **3.** Mounting plates are engineered specifically for each application and attach the cooling/heating module to the firewall from inside the car. The Sure Fit series attaches without drilling any new holes in the firewall.

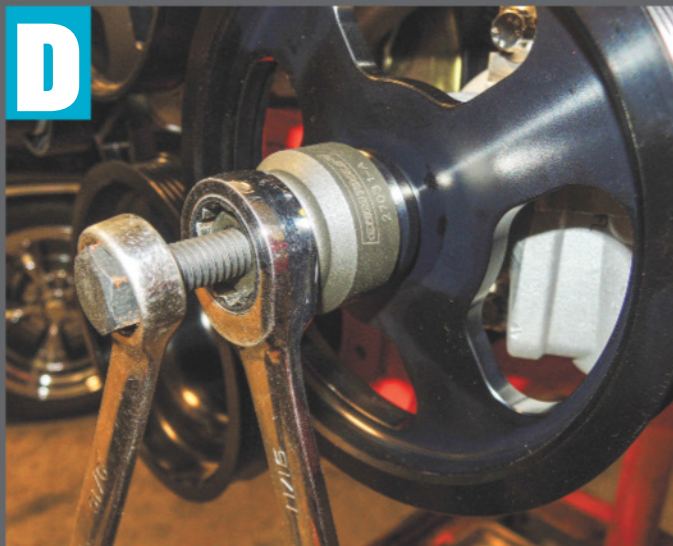


4. Once the mounting plate is attached to the module, the hoses are routed to the interior and secured to the proper connections. **5.** It's easiest to have a friend hold the module in place from the interior while the mounting bolts are secured to the firewall from outside. **6.** The factory defroster duct assembly is jettisoned and replaced with individual ducts due to interference with the hose routing and control panel.

HARD DRIVE

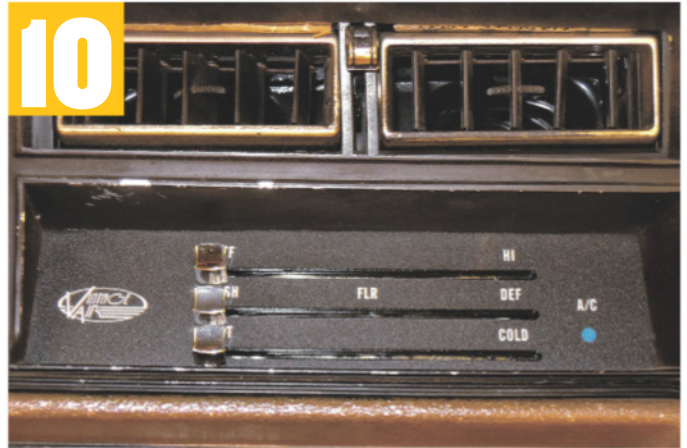
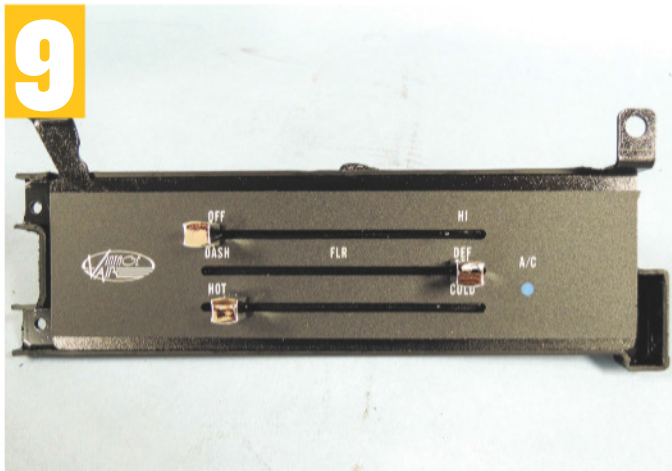
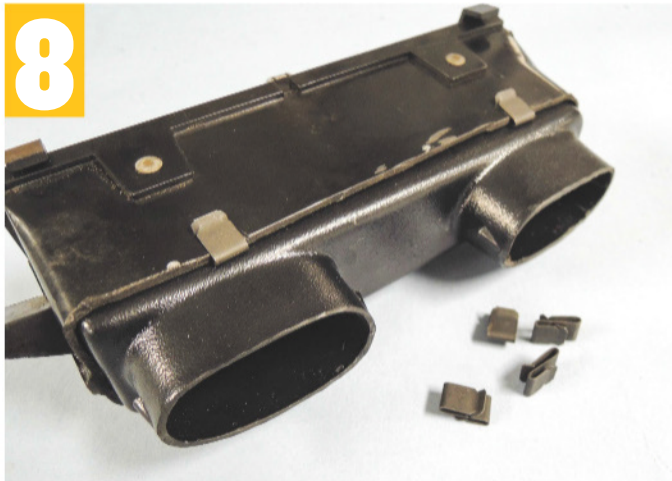
Factory serpentine accessory drives provided the inspiration for Vintage Air's Front Runner systems, which have been engineered to accommodate most popular engine platforms. Each one combines power steering, charging, and cooling components in a compact, attractive package that enhances the performance and appearance of those necessities.

The key is a billet aluminum truss that supports them all, and nearly all systems are upgraded with a high-flow water pump, a 170-amp alternator, and a compact Type 2 power steering pump with reservoir. It's a unique example of form and function working in tandem, and the Front Runner provides an impressive result.



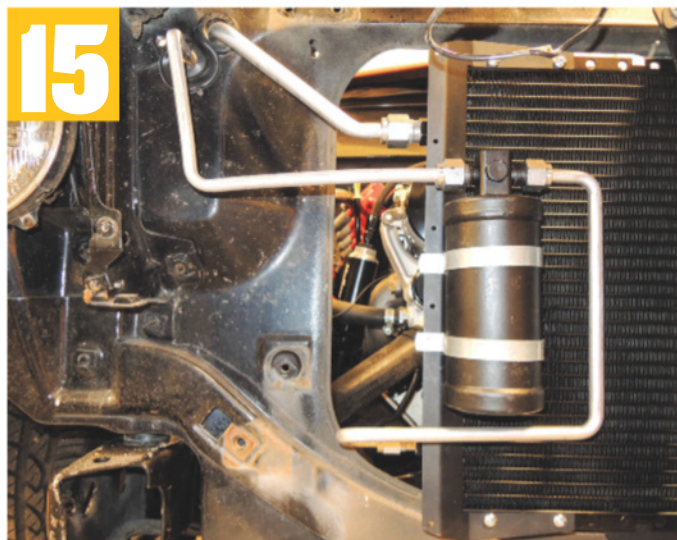
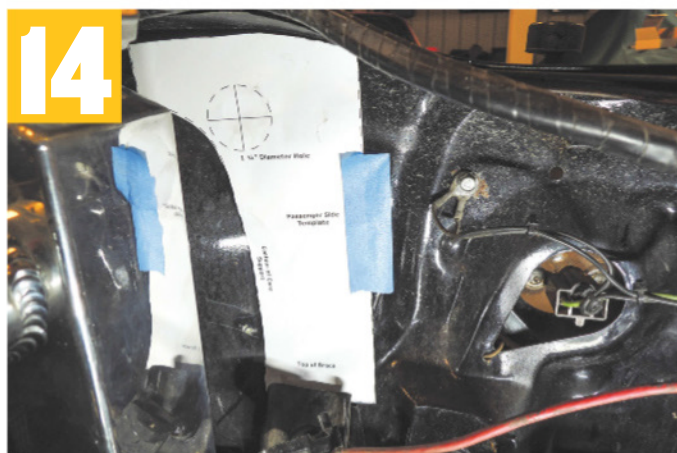
A. By combining the steering, charging, and cooling components into one compact package, the Front Runner system eliminates the multiple adjusters and brackets found on factory setups. They are available in a variety of finishes; we spec'd the black and chrome finish. **B.** Long, stainless studs screw into the water pump mounting holes in the block, providing a stable platform to support the water pump and accessory truss. **C.** After the A/C compressor is attached to the truss, it is slid in place over the long studs. Once it is secured, the alternator and power steering pump can also be mounted. **D.** The power steering pump pulley is an interference fit on the pump's shaft, so a special installation tool is mandated. Attempting to press or hammer the pulley into place will damage the pump's internals. **E.** Although this system is installed on a small-block Chevy, the compact design carries over to all other engine platforms and combines operation and aesthetics into an effectively engineered package.

7. Since hose sizes and routing are different from the factory pieces, step-down adapters may be needed on some of the dash outlets, like these on the Chevelle corner vents. **8.** The upper, center vent for the Chevelle had to be shortened and fitted with the dual inlet adapter that was supplied with the kit. The vent itself is retained to maintain the factory appearance. **9.** This electronic version of the control panel is a direct replacement for the original and utilizes current technology to provide easy, reliable operation.



10. Both the control panel and the upper, center dash outlet are installed in the original locations using the factory hardware. **11.** With the control panel mounted, the supplied wiring harness can be installed. Foolproof connectors ensure that the procedure goes smoothly and that all connections are properly placed. **12.** Once the hoses are connected to the module and routed to the general area of each outlet, the dash can be reinstalled and all under-dash connections can be finalized.

13. A new, high-efficiency condenser, drier, and pre-bent lines are provided in the Sure Fit kit, assuring complete system compatibility and a leak-free routing of the refrigerant. **14.** Our core support had to be modified to accommodate the pre-bent condenser lines. Templates were supplied in the kit to guide us for proper location and size of the holes needed for them to pass through. **15.** Once the modifications were complete, the condenser bolted right up in the stock location and the drier connections were completed.



16. The refrigerant hoses can now be cut to length and marks made on both the hose and the fitting to index them properly. **17.** A special crimping tool is mandatory to properly secure the hose to the connector. This is likely a job to be sourced out to an automotive A/C shop; the tool is expensive and we were unable to find one to rent.

18. Like any electronic device, powering up the system requires a couple of crucial wiring procedures; main power is attached directly to the battery, and solid, bare-metal grounds are required at each connection.



19



19. While OE compressors are heavy, inefficient, and require considerable power to operate, the basic Vintage Air system compressor is a compact Sanden unit that's V-belt compatible and combines efficiency and low power consumption. The optional Front Runner accessory drive (See Hard Drive) is a very nice upgrade. ■

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UNDER PRESSURE

Q: Ray, you've helped me before with a problem, so maybe you can give me an opinion on this. I've got a big-block 1969 Chevelle (396-cu.in.). The engine was freshened up a few years back with new rod and main bearings, moly rings, new cam and lifters, valve stem seals, cleaned-up heads, headers, aluminum intake, and Stage 3 JET Performance Quadrajet. Before I freshened up the engine, I checked all the clearances — the cylinders were only out less than 0.003-inch, the rod and mains were only out by 0.001-inch, so no machine work was done other than a good cylinder hone, and I lightly polished the crank.

This engine runs strong. My question is this: I installed a Melling high-volume/high-pressure oil pump and now I'm getting 60-65 pressure when cold (10-40 zinc oil), but when it warms up (temperature 185-degrees F), I'm seeing 25 psi at idle (1,100 rpm). When I get on it, it immediately goes to 50-55 psi. Should I be concerned?

Wayne
Via email

A: *Engine oil pressure is the cumulative result of the clearances in the engine, the chemical composition and weight of the oil, and the design of the oil pump.*

You state that you have a high-volume/high-pressure oil pump. I have never seen one of these, but I may be wrong. An oil pump is usually one or the other. For the most part, the design of the pump's rotors or gears will determine the volume while the bypass spring determines the pressure.

If there is more volume than can be pushed through the engine, the pressure will rise, but it will not be the pressure that keeps the bearing material away from the journals of the crankshaft. Think of it as a garden hose versus a fire hose being put through the same nozzle.

The industry uses a general rule of 10 psi of oil pressure per 1,000 engine rpm. Based on this, at 1,100 rpm (why is the idle speed so high?), the minimum would be 11 psi, and you have 25 psi.

From the way the pressure climbs with engine speed, I would suspect that you have a high-volume (which is desirable) and not a high-pressure oil pump.

You want to flood the bearings with a

high flow of oil to act as a coolant; using high-pressure oil pumps in these engines is an antiquated practice, unless the engine is tired and you just want to keep it going.

BAD VIBES!

Q: Maybe you can help me figure out why my 2015 Mustang GT convertible (5.0 automatic, 28,000 miles) has a high-frequency vibration in the driveline from 50 mph to 75 mph.

The local Ford service department cannot figure it out. Neither can the tire dealer (new tires balanced twice — all four are perfect), or the driveshaft balancer. He balanced the stock driveshaft with no success and tried replacing the stock two-piece driveshaft with a one-piece driveshaft, and that produced really bad results: "Violent" shaking, in the words of the technician. I saw the two-piece driveshaft when it was out of the car and the carrier bearing assembly was mush. The Ford dealer then put in a new two-piece driveshaft. There is some reduction in the vibration, probably due to the ability of the new carrier bearing to absorb vibration. I think the carrier bearing's premature failure is the result of the problem. I don't think it is the problem.

I put the car on a dynamometer and ran it up to highway speeds. The technician listened to the transmission, rear end, and rear axles with a probe. He said the unusual sounds mostly came from the transmission tailshaft area. The tire vendor put the car on a lift with a driver in it and ran it up to highway speeds. In his words, "The front end of the driveshaft was dancing all over the place." I went back to the Ford dealer and shared this with the service manager. He said the driveshaft would likely dance on a car with an unloaded suspension. He also said that if the ring inside the tailshaft was bad, I'd see a fluid leak (I don't). He didn't think the rear end had anything to do with it. He summed it up with the predictable "they all do it" statement. I've been in other Mustang GTs. No, they don't all do it.

To me, the vibration feels like it comes from the tail of the transmission, sometimes manifesting in a dashboard vibration. At higher speeds the vibration is accompanied by a growl in the rear end. When decelerating, the growl subsides, and the vibration becomes more transmission-centric. I feel the vibration in the steering wheel and when I put a finger on the rearview mirror

mounting bracket. At certain speeds the side-view and rearview mirrors dance. I do not feel the vibration in the transmission shift lever or console and the transmission shifts smoothly.

It'd really be helpful if you could suggest what the problem and solution might be, or what I should check next.

Best Regards,
Mark Decker
Hudson, New Hampshire

A: *I am honored by your kind words, and hope that I may be able to help you.*

I have never run a RWD vehicle on a lift at highway speeds. I would believe that the test would be mostly invalid since the angle of the driveshaft to the differential would change dramatically, just like a FWD car on a lift with the wheels in the air.

In my estimation, the key here would be to determine if the front of the driveshaft is dancing around after the U-joint or where it goes into the transmission. This may be, for the most part, impossible to determine, and I do not suggest running the car up to speed on the lift again.

All that needed to be done was to determine the distance for the top of the rear tire to the bottom of the fender lip and then, with the car on the lift, use tall screw-jack stands to support the differential on each side on each axle tube. You would then have the proper driveshaft angle or, even if it is not proper, the one the Mustang sees going down the road.

You did not mention if anyone checked/confirmed the driveshaft/pinion angle or when the problem began. The history of when it began and what may have happened just before that is critical. I do agree — they do not all do that.

If the pinion angle is incorrect, the driveshaft will be rotating in an ellipse and, over time, that will take out the carrier bearing and possibly the pinion and tail bearings in the transmission. Just because there is not a transmission leak right now does not mean much.

I would find a race car chassis shop and have them check, record, and, if necessary, set the pinion angle. Guys who build drag-race chassis are very experienced with this procedure, while sadly, most mechanics have never done it or understand the compound angles.

Since I do not know what the events were

that prompted this problem, my money is on the angle of the driveshaft and the connection to the pinion yoke. Please let me know what you find.

KEEPING COOL

Q: In regard to Brian McMahon's question about A/C systems ("A/C Service" HMM #228), I would like to respond with an observation made over the last 36 years.

I have driven one Mitsubishi and two Hyundais over 14 years, putting over 140,000 miles on each car.

One thing that I believe contributes to A/C failure is lack of use. Brian lives in Chicago, and in those northern climates, he may only run the A/C three months out of the year.

Meanwhile, I live in Tampa, Florida and my A/C runs all year long. The seals and bearings are always lubricated. In those cooler climates, you should run your A/C for about 5-10 minutes on every outing year-round.

As a side note, I have a '69 Barracuda that has a modern Sanden rotary compressor. I didn't start or drive the car for two years due to family illness issues. Shortly after getting the car back on the road, the

compressor failed. I attribute the failure to the lack of use.

Good maintenance is always best, but if you don't use it, you could lose it.

Jerry Eugenio
Tampa Florida

A: Thank you so much for reaching out. For the past 40 years or so, on most vehicles, when the defroster is engaged, the A/C compressor runs to remove the humidity from the air to help dry the windows quickly. Thus, even in Alaska, the A/C is in use throughout the year.

I agree with you that machinery needs to be used, but look at it this way: There are many non-automotive vehicles such as farm tractors and construction equipment, as well as new vehicles and machines, that sit for a long time before they are sold, and they don't experience A/C failures right away. Granted, if a farm tractor sat for five years before it was sold, there would be a loss of refrigerant, but the compressor would not fail.

Based on you having three new vehicles in 14 years, on the average, you keep each around five years. That works out to a new

car every five years or so. That is just at the threshold of needing to have the A/C serviced.

Without doing an autopsy on your Barracuda's Sanden compressor, we do not know why it failed. It may have been a mechanical issue. However, I would bet it was from acid. Was the dryer changed with the compressor? If not, then the desiccant is most likely saturated and may take out the new compressor over time.

Please know that I agree it is always good to use every aspect of machinery regularly, but I do not want someone in North Dakota in the winter to be worried. If they use the defroster, then the A/C is being exercised!

Moisture that enters the system as the refrigerant slowly escapes is the culprit for most A/C system failures. Several of my vehicles have between 100,000 and 500,000 miles as of this writing. I have never suffered an A/C system failure — every three to five years, I service the systems. ■

Send your troublesome tech questions to: askray@hemmings.com or Ask Ray, P.O. Box 2000, Bennington, VT 05201

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SWAP MEET

By Jim O'Clair

UNDERSTANDING ANTIFREEZE LINGO

Q: Can I upgrade from OAT to HOAT antifreeze, and what is different about them? I have a late-model Ram 1500 truck that calls for OAT.

Kevin Herbert

Via hemmings.com

A: OAT (organic acid technology) antifreeze is usually orange in color and was used extensively by General Motors to address the differences in compatibility with the metallurgy in various engine components being used at that time. This product also extends the interval between system flushing and replacement of fluid (it is said to last longer). It was later adopted for use in Chrysler cooling systems as well. Made from organic acids, the OAT fluid does exhibit less corrosion protection than standard green ethylene glycol antifreezes, and your system needs to be more carefully monitored than with the green.

HOAT, or hybrid organic acid technology, is gold in color and adds the additional corrosion protection found in the regular green antifreeze while retaining the longevity of OAT and the necessary compatibility with engine parts made from different metals or non-metals, in the case of intake manifolds on newer vehicles. HOAT is often referred to as "global antifreeze" and is compatible with many other colors and formulations of coolant as well.

Going from orange to gold seems a logical choice for any cooling system upgrade in instances where OAT was the recommended fluid. A full system flush is all that is needed; however, we recommend you use the correct cooling system funnel when refilling. The funnel prevents air pockets in the coolant when you are installing the gold HOAT or any other color antifreeze in modern cooling systems. Air pockets in antifreeze are becoming a more common occurrence in the last few years, resulting in the system overheating.

TH700-R4 TO 4L60E CONVERSION

Q: I want to upgrade from the TH700-R4 I have in my two-wheel-drive 1988 Chevrolet 1500 pickup to a modern 4L60E

unit, but I understand there are several different lengths of the 4L60E available from numerous models and years. My unit measures 30¾ inches from the front of the bellhousing to the tailshaft, and the transmission mount is 22½ inches back from the bellhousing. What years should I be looking for that are the easiest to install without a lot of adaptation?

Fred Mortensen

Via hemmings.com

A: By your measurements, a direct bolt-in unit would be from a 1993-'94 Chevrolet or GMC ½-ton or ¾-ton pickup or Suburban with a 262-cu.in. (4.3L) V-6 engine, or a 305- (5.0L) or 350-cu.in. (5.7L) V-8. The four-wheel-drive units are also compatible, but only the transmission itself could be used — you would have to re-use your 700-R4 tailshaft assembly once you remove the transfer case from the back of the unit. Later 4L60Es are not compatible without an adapter, as the 1996 and newer units used a smaller bellhousing (20 inches vs. 18¼ inches). Be sure the transmission you purchase comes with the electronic control unit. The 4L60E needs the computer for proper shift point information. You can also re-use your original torque converter if necessary.

ADAPTING MOPAR DRIVESHAFT

Q: I'm currently trying to find a weld-on yoke or pinion yoke that will allow me to use my existing driveshaft with the new limited-slip rear I am installing in my Dodge, which has a 273-cu.in. V-8 and four-speed manual transmission. The current U-joint is too small, both in cap size and cross width. I was hoping the driveshaft would work as is because the length is perfect, but it will not bolt onto the "new" pinion yoke. Is there an alternative to replacing one or both of the two yokes? The current U-joint has 1.08-inch caps and the cross measures just under 3-inches. The replacement rear needs a U-joint with 1½-inch caps and a longer cross dimension of about 3¾ inches. I assume this could be a common problem with many of the rear-axle swaps you have previously written about. Thanks for any help you can provide.

Terry Ryan

Via email

A: Going by your measurements, it appears you are trying to adapt a Detroit 7260 series driveshaft to a Detroit 7290 series pinion yoke. This is a common problem when upgrading from a stock Chrysler Corp rear axle to a larger differential. Many driveline shops can exchange the driveshaft yoke — it is not a difficult process, but it would be necessary to re-balance the driveshaft after the switch.

There is a simpler solution, however: You can use a driveline adapter U-joint that has two different cross dimensions and cap sizes. Spicer offers an adapter joint, part number 5-460X, that fits the bill for your conversion without changing yokes. Precision and SKF also offer the same joint, part number 348. This would be the same U-joint if you were adapting a 7290 series driveshaft to a 7260 series front transmission slip yoke. These should be available from your local auto parts store; the aforementioned manufacturers produce about 20 different adapter joints for these circumstances. When inquiring at the parts store, bring along as many measurements as you can; most joints are measured by snap ring dimension rather than cross length. Measure inside lock-style caps from the outside of the snap ring groove on the cap to outside of opposite cap groove. If your joint uses outside snap rings, measure the dimension from the inside of the groove in the yoke to the inside groove in the opposite loop. In the case of a rear differential U-joint that is held in by straps or U-bolts, the overall length, including caps, is needed as you would measure a joint with outside locks. ■

All discussions in this column regarding repairs, conversions, parts swaps, etc. are offered as suggestions. Performing any such work should be accompanied by thorough research to verify proper parts compatibility and procedures to achieve a safe, functional result.

We welcome any and all questions related to suspension, brake, engine, differential, and transmission upgrades.

Email us at swapmeet@hemmings.com or submit inquiries to our Facebook page, www.facebook.com/HemmingsNews or our website where comments can be made at the bottom of dozens of previous Swap Meet articles posted there.

2023



#1
VINTAGE RALLY!

2023 GREAT RACE ROUTE

St. Augustine, FL to Colorado Springs, CO

June 24-
July 2, 2023

SATURDAY, JUNE 24

START: Francis Field,
St. Augustine, FL – 8 a.m. to 1 p.m.
OVERNIGHT: Main Street,
Tifton, GA – 5:30 p.m.

SUNDAY, JUNE 25

LUNCH: Toomer's Corner,
Auburn, AL – 12:15 p.m.
OVERNIGHT: Uptown at Protective
Stadium, Birmingham, AL – 5 p.m.

MONDAY, JUNE 26

LUNCH: Courthouse Square,
Tupelo, MS – noon
OVERNIGHT: Guesthouse at
Graceland, Memphis, TN – 5 p.m.

TUESDAY, JUNE 27

LUNCH: Clinton Library,
Little Rock, AR – 11:45 a.m.
OVERNIGHT: Russellville Depot,
Russellville, AR – 5 p.m.

WEDNESDAY, JUNE 28

LUNCH: Community Center,
Eureka Springs, AR – 12:15 p.m.
OVERNIGHT: Main Street downtown,
Joplin, MO – 5 p.m.

THURSDAY, JUNE 29

LUNCH: Commercial Street,
Emporia, KS – noon
OVERNIGHT: Old Town,
Wichita, KS – 5 p.m.

FRIDAY, JUNE 30

LUNCH: Courthouse Square,
Great Bend, KS – noon
OVERNIGHT: Main Street at Stevens
Park, Garden City, KS – 5 p.m.

SATURDAY, JULY 1

LUNCH: Colorado Welcome Center,
Lamar, CO – 11:45 a.m.
OVERNIGHT: Pueblo Union Depot,
Pueblo, CO – 5 p.m.

SUNDAY, JULY 2

FINISH: Tejon Street,
Colorado Springs, CO – 1 p.m.



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1968 PONTIAC GTO “ROYAL BOBCAT”

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The latest collectible to join the Hemmings merchandise store is a die-cast scale model of the March 2020 (*HMM* #199) cover car, the Musclepalooza XXIX Best-in-Show-winning 1968 Pontiac GTO in Royal Bobcat livery. This New England-based hardtop was rescued and carefully restored, its story making it worthy of being rendered in 1:18. The unusual Meridian Turquoise metallic paint of the Auto World model (item AMM1277) is accented with a white rear deck, white striping, and



delicate emblems that include Royal Bobcat plaques on the doors. Flock carpet and detailed panels give the interior a realistic appearance that's matched by the 400-cu.in. V-8 with Ram Air II components that nestles between red fender liners below the opening hood. Era-appropriate redline tires wrap steerable five-spoke Hurst wheels, and the undercarriage looks true to life. The finishing touch: scale *Hemmings Muscle Machines* logo plates on the front and rear. Pontiac fans will want to grab this special piece before it sells out.

NHRA DEDICATED TO SAFETY SIGN

SUMMIT RACING EQUIPMENT • 800-230-3030

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The National Hot Rod Association—founded by Wally Parks in 1951 as a sanctioning body that legitimized the new sport of drag racing and established rules for its safe operation—experienced massive growth through the 1960s. By the mid-1970s, some of the most widely popular classes overseen by the NHRA were Top Fuel and Funny Car, and representative examples of each were what the organization chose to highlight in an update to its famous red, white, and blue oval emblem. Summit Racing Equipment now offers a decorative steel sign (item ORB-90202054) that's sized 20 x 10.25-inches and represents the NHRA's calling card from 1974 through 1985. It sports visual representations of those two hot classes, along with the evergreen trademark phrase, “Dedicated to Safety.” It's an inexpensive piece of history that will spark memories and inspire conversations as it enlivens your garage or den wall.



HOW TO INSTALL CORVETTE INTERIOR KITS

BY FRED MATTSON • CARTECH PUBLISHING • 800-551-4754 • CARTECHBOOKS.COM • \$39.95



To some, restoring the interior of a vehicle—reupholstering seats, replacing door panels, fitting carpeting, installing a folding soft top—is even more daunting than tackling an engine rebuild. It doesn't have to be that way, especially if you can use components that are intended to work together, as you'll find in many suppliers' interior parts kits. The first three generations of Corvette share great interior-part replacement availability, and a new book has been published that walks you through the process.

Professional automotive upholsterer and Corvette specialist Fred Mattson has authored an impressive title for owners of Chevy's classic fiberglass sports cars that will take the apprehension out of undertaking aftermarket interior-kit installation. This 176-page softcover is logically structured, starting with the basics of where to order parts, how to do so, and what tools you should have on hand for the various tasks you'll perform. Mattson points out specific features of first, second, and third generation interiors using detailed color photos and clear language to lead readers through what are sometimes complex replacement processes. While this book is geared towards Corvette owners, it's an excellent resource for anyone considering doing their own automotive interior restoration using premade kit components.

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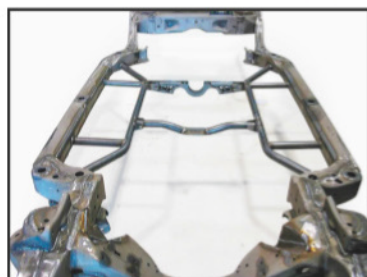
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for the El Camino. The kits are easy to install and will stiffen the vehicle's frame, contributing to improved handling while strengthening the car. Made from DOM tubing, the parts are computer-designed, -machined, and -bent. Note that welding will be required for most kits, and they come with adjustable transmission crossmembers for manual or overdrive applications. Dual exhaust can be accommodated as well, with spacious openings for pipe routing. Hardware is included. Ask about p/n SUM-7708000 for more details.



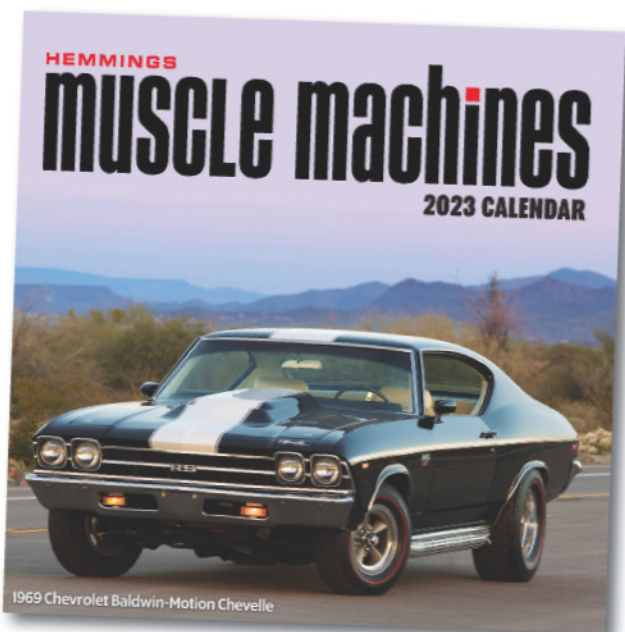
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2023

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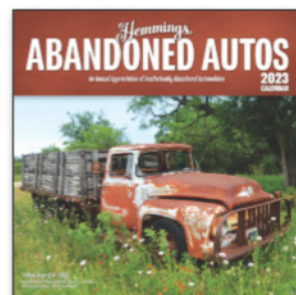
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AUCTION ACTION



Not all restomods command huge money. Case in point: This 1973 Chevy Nova that boasted a 600-plus hp 454-cu.in. V-8, a Ford 9-inch axle, four-speed manual, and air conditioning, sold for \$19,000.

CARLISLE AUCTIONS 2022

THE KEYSTONE STATE WELCOMES THE FALL SEASON WITH A \$5.4 MILLION RESULT

BY MATTHEW LITWIN • PHOTOGRAPHY COURTESY OF CARLISLE EVENTS

FALL COMES WITH MIXED emotions. Winter is near. Conversely, there's the cooler, crisp air that makes for pleasant drives in our vintage rides; in the northern reaches, the foliage begins its annual display of vibrant colors. The aroma of hot spices fills the air. And if you're in south-central Pennsylvania, so too does the scent of aged motor oil, spent high-octane fuel, and the smell of just-made festival-style delicacies like fresh funnel cake.

It's the atmosphere that's greeted vintage car devotees within the Carlisle Fairgrounds each autumn since 1974, when the Fall Swap Meet was founded. Like its spring equivalent, the fall meet has expanded to include an auction, hosted at the Carlisle Expo Center, located across the street from the swap meet's main gate.

The 2022 dates for this annual offering of automotive treasure were September 29-30, smack-dab at the height of the swap meet weekend. According to Carlisle Events, the auction delivered a 455-vehicle catalog, 20 of which originated from the collection of event co-founder Bill Miller, including an eclectic mix of domestic performers and cruisers

from a multitude of eras. For those who preferred vintage workhorses, the sale also offered what was billed as the "All-Truck Hour," in addition to the usual array of boulevard cruisers and Detroit's muscle cars from all eras.

Once the action started, some of the usual suspects rose right to the top of the sales results. First up was a 1969 Pontiac Trans Am that commanded \$91,000 (all listed sale prices exclude a buyer's premium). The near-perfect T/A was closely followed by a 1962 Chevy Corvette that realized \$85,000. Dispelling the belief that muscle cars would dominate the top 10, a 1954 Kaiser Darrin delivered an \$82,000 sale price. Such strong bidding equated to nearly \$360,000 for the top five sellers alone. But that was only half of the story: No fewer than 84 lots sold in the \$10,000 to \$20,000 price range, and as you'll read, several incredible bargains were recorded, too.

Officially, Carlisle auctions recorded a sell-through rate of 64 percent while amassing a grand total of \$5.4 million. For complete results, and a comprehensive list of upcoming sales in Carlisle Events' Florida and Pennsylvania locations, visit carlisleauctions.com

THE NUMBERS

Total Sales: \$5.4 million

Top Muscle Car Sale: 1969 Pontiac Trans Am; \$98,280

UPCOMING AUCTIONS

February 10 – 11: Lakeland, Florida (2023)

April 20 – 21: Carlisle, Pennsylvania (2023)

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LEGEND

Condition: #1 = Excellent; #2 = Very Good; #3 = Average; #4 = Poor; #5 = Major Project

Reserve: Minimum price owner will accept

High Bid: The highest offer made (but vehicle did not sell) *

Selling Price: What the vehicle sold for *

Average Market Range: Values based on current market trends for vehicles in #2- to #1 condition, respectively

*All prices shown include the buyer's premium on sold lots. Unsold lots include only the highest bid, when available.



1969 CHEVROLET

MODEL: Camaro SS
CONDITION: Restored
RESERVE: Undisclosed
SELLING PRICE: \$42,000
AVG. MARKET RANGE: \$40,000 - \$56,500

Here's a compelling thought: There are so many 396-powered, 1969 SS-trimmed Camaros offered at public auctions that it's easy to forget these cars came standard when new with a small-block 350. Painted Fathom Green with a matching interior, this 350/automatic equipped first-gen pony was claimed to display the "X-II" trim code and boasted what seemed to be a relatively recent restoration. Whether that work added the cowl induction hood wasn't clear, though "factory air conditioning" was included in the listing. Other goodies included a wood steering wheel, power steering, bucket seats, and center console. It seemed to be a nice ride that sold on the money.



1970 FORD

MODEL: Mustang Mach I
CONDITION: Restored
RESERVE: Undisclosed
SELLING PRICE: \$57,500
AVG. MARKET RANGE: \$75,000 - \$106,000

We're not sure what happened here. At first blush, this '70 Mach I had the hallmarks that should have sent it deep into five figures with ease. Supported by documentation, the Ford had been outfitted for performance: 300-hp 351; factory close-ratio four-speed with a Hurst shifter; 3.50 geared Traction-Lok differential; shaker hood; rear spoiler; tach; power front disc brakes; bucket seats and console; and quick-ratio steering. Plus, all the standard markings that made this thing stand out when new. There was one puzzling line item: "This is a fine example of an original Mach I [showing 22,000 original miles per title] retaining all original body panels." So, was the car restored, or not? What a deal!



1972 OLDSMOBILE

MODEL: Cutlass
CONDITION: Modified
RESERVE: Undisclosed
SELLING PRICE: \$25,000
AVG. MARKET RANGE: N/A

Here was another muscle car that was offered with plenty of eye-catching pop but little in the way of details. What we knew at the time of the sale: The car was an Olds Cutlass, rebuilt as a 4-4-2 tribute, or at least, that was the idea. Below the twin-scooped hood — decorated with orange stripes — was a 350-cu.in. engine of unknown horsepower. It was complemented by a Muncie four-speed manual. New white paint and orange interior were accompanied by a set of aftermarket five-spokes with narrow sidewall tires. All in all, it was a nice-looking restomod that oozed 4-4-2, but without the typical 4-4-2 price tag. Considering costs involved to build, this was no doubt a good buy.



1986 CHEVROLET

MODEL: Monte Carlo SS
CONDITION: Original
RESERVE: Undisclosed
SELLING PRICE: \$29,000
AVG. MARKET RANGE: \$7,000 - \$11,000

From our observation of the auction catalog, there were a high number of '80s and '90s performance cars available, among them this 1986 Chevy Monte Carlo SS. Details were lacking, save for three items. One: It had been part of the Bill Miller collection. Two: The odometer read 11,000 miles at the time it was added to the collection "many years ago." And three: "Title reads exempt" — meaning that it's allowed to change hands without disclosure of the actual mileage. While the Monte Carlo SS wasn't quite a Buick GN/GNX competitor in terms of performance back in the day, nor in values today, it does remain far more plentiful/affordable than the Turbo Buicks. We think the value guide range is a little soft, but someone still paid a premium.



1971 FORD

MODEL: Torino Cobra
CONDITION: Restored
RESERVE: Undisclosed
SELLING PRICE: \$55,000
AVG. MARKET RANGE: \$50,000 - \$67,500

Remember when the redesigned Ford Torino — with its super sleek and lower profile — won *Motor Trend's* "Car of the Year" award in 1970, and how it was offered in a wide spectrum of trim levels, all the way to Cobra guise, like this '71 example? We also remember how the car was an aerodynamic flop on the NASCAR circuit, but it was a different story on the street, where factory muscle cars were still clinging to life in '71. As such, this Cobra benefitted from the install of a 351 Cobra Jet engine, the same one reportedly still secured to the chassis post restoration, though equipped with the "ultra-rare Shelby intake" manifold. Tach, matching-numbers engine/automatic, Magnum 500 wheels...it all added up to a fine sale on the money.



1966 PLYMOUTH

MODEL: Hemi Belvedere II
CONDITION: Restored
RESERVE: Undisclosed
SELLING PRICE: \$70,000
AVG. MARKET RANGE: \$30,000 - \$42,000

According to the latest guides, a 1966 Plymouth Belvedere II two-door hardtop in good to excellent condition should bring between \$12,000 to \$17,000, and the optional 426 Hemi should increase the range significantly, to the figures shown above. We think that's a bit soft, but we didn't think it was *that* soft. Two words: Restoration and documentation. The former of the two was reported to be beyond incredible — nut-and-bolt style that kept everything laser straight. The latter was self-explanatory when it was accompanied by "three Chrysler broadcast sheets." There was no mistaking this car for anything other than what it was: A true factory race-bred street-legal machine that offered comfort and style.



1996 FORD

MODEL: Mustang GT
CONDITION: Original
RESERVE: Undisclosed
SELLING PRICE: \$6,500
AVG. MARKET RANGE:
 \$8,500 - \$15,000

If you were looking for a muscle car bargain, you missed a massive opportunity here. Fox-era Mustangs are on the rise with collectors, but their successors, the models of the SN-95 generation, are also capable performers and yet still very affordable. Plus, they're still supported by a robust aftermarket. They can also be easily tuned to suit driving preferences. This SN-95 convertible from '96 seemed to be a gem, crafted in Dearborn with a 215-hp V-8, automatic transmission, and a slew of power accessories. Featuring 17-inch wheels and grip-ready tires, it had also appeared to be fastidiously maintained — an original through and through that sold well below the radar.



1967 PONTIAC

MODEL: Firebird H.O.
CONDITION: Restored
RESERVE: Undisclosed
SELLING PRICE: \$41,000
AVG. MARKET RANGE:
 \$65,000 - \$90,500

Here was another relative bargain. A first-year Pontiac Firebird convertible, ready-made by the division for performance thanks to the 285-hp 326-cu.in. H.O. engine, which is a relative rarity, seen far less often than the Firebird 400. This one had been painstakingly restored, the work uncovering that fact that the numbers-matching drivetrain was intact. Plus, documents confirmed it had been special ordered with the Coronado Gold paint. Power steering and brakes were both present, plus the iconic hood tach, AM/FM radio, center console, and dual exhaust with splitter tips. All for a rather low price.



1983 CHEVROLET

MODEL: Camaro Z28
CONDITION: Original
RESERVE: Undisclosed
SELLING PRICE: \$9,250
AVG. MARKET RANGE:
 \$9,000 - \$11,500

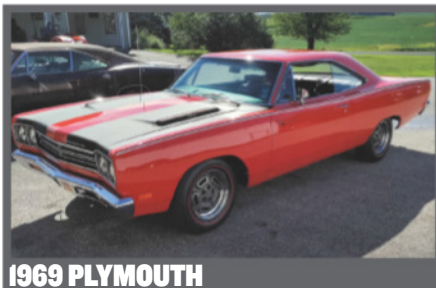
Too often we've seen Eighties muscle cars that have been squirreled away in climate-controlled storage for decades, only to be sold with 1,000 miles or less. The downside is, unless you plan to continue keeping the car as art, it will need a thorough refreshing of the fuel, brake, and other systems to be road-ready. That said, you can still find Eighties muscle cars in excellent, ready-to-drive condition if you look, like this 1983 Camaro Z28. It was a well-maintained car that had been driven 76,000 miles. Built with a five-speed manual to complement the 5.0-liter V-8, the T-top coupe also came with a complete history file and original documents. Seriously, for less than 10 large, one could hardly do better.



1982 CHEVROLET

MODEL: Camaro Z28
CONDITION: Original
RESERVE: Undisclosed
SELLING PRICE: \$7,750
AVG. MARKET RANGE:
 \$10,500 - \$14,000

So, maybe you could do better than the '83 Z28 discussed elsewhere. This '82 edition featured the factory-issued Indy Pace Car package. There was a lot to like, starting with being a well-kept all-original specimen, lightly exercised to the tune of 34,000 documented miles. It was also a one-owner car with a clean history report. T-tops were part of the Indy package and were present. If there was a caveat, its Cross-Fire injection V-8 didn't exactly earn a bulletproof reputation among diehard gearheads when new, and later models, of course, witnessed better fuel delivery systems. No matter — this was still an incredible deal.



1969 PLYMOUTH

MODEL: Road Runner
CONDITION: Restored
RESERVE: Undisclosed
SELLING PRICE: \$77,500
AVG. MARKET RANGE:
 \$45,000 - \$60,000

When new, Road Runners offered a powerful yet affordable combination that enabled those with a heavy foot but modest means to get into the street scene. Here we are, nearly six decades later, still clamoring for a bargain muscle car, even though the average sale price shown here doesn't exactly reflect that, and this example far exceeded those figures. So just how does a base 383 example, especially one with a non-original engine, garner such a high sale price? Was it the four-speed manual? Perhaps the famed "recall" wheels? The street/strip friendly 3.55 gearset? TTI headers mounted against the engine? Perhaps we'll never know. No doubt, though, the seller left rather happy.



1969 CHEVROLET

MODEL: Corvette
CONDITION: Restored
RESERVE: Undisclosed
SELLING PRICE: \$61,000
AVG. MARKET RANGE:
 \$75,000 - \$90,000

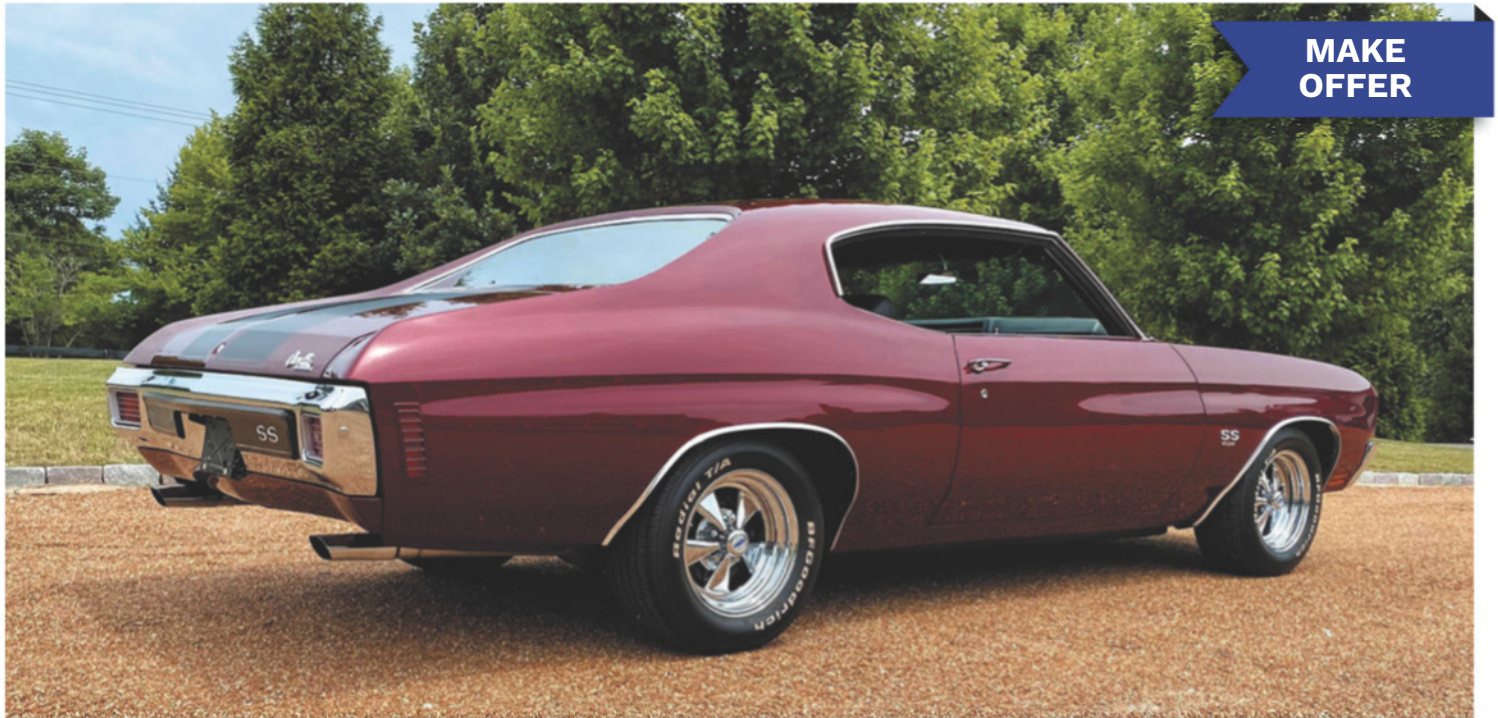
Most Corvettes packing a 427-cu.in. big-block have drawn a lot of bidder attention during the 2022 auction season, which seems to have played a part in driving their values back up, especially those with NCRS accolades. On the surface, this 1969 Corvette coupe had the right recipe: A 435-hp 427 engine, four-speed manual, side pipes, and a "complete restoration about eight years ago." Other details were lacking, though. Had the car been stored post-restoration? Driven sparingly? Shown? Awards? Any kind of history at all? With nothing more than the the most obvious specs to go on — and mention of the restoration — it's easy to see how the 'Vette underperformed, likely to the delight of the winning bidder.

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AUCTION NEWS

By Tom Comerro



RM SOTHEBY'S

HERSHEY HIGHLIGHTS AT RM SOTHEBY'S

The Hershey Lodge once again hosted RM Sotheby's annual auction during Hershey week and when the smoke cleared, more than \$10 million in total sales were realized for the auction house. The sell-through was an impressive 88.5 percent, with a small amount of American muscle cars sprinkled throughout the docket. Undoubtedly the highlight of the auction was a 1987 Buick GNX, one of just 547 made. The turbocharged Buick showed only 2,045 miles on the odometer and included its original window sticker, owner's manual, and dealership sheet. This car was number 149 and it had all of the options and luxuries offered, including cruise control, six-way power seat, and AM/ FM cassette with "Concert Sound" speakers; it also had the factory spare tire and original tools. The rarely driven GNX found a new home for \$231,000.

Also taking part in the auction was a mighty Mopar: a 1970 Dodge Challenger R/T. Despite arriving relatively late to the muscle car era, the first-production-year Challenger has long been a highly desirable car, and less than a quarter of those built for the year sported the R/T package. This car was complete with the proper 383-cu.in. V-8 beneath twin hood scoops. It had been restored and featured a lot of options, including Plum Crazy paint, rear stripe, white vinyl top, and hood hold-down pins. The big-block engine was paired with a three-speed automatic transmission and interior comforts included A/C, AM radio, and woodgrain console. The sale included a factory build sheet, window sticker, and invoices from the last ten years. The Challenger rolled off the block for \$61,600.

Visit rmsothebys.com for a full rundown of the Hershey Auction.

JANUARY EVENTS

- | | |
|-------|---|
| 4-15 | Mecum Auction
Kissimmee, Florida • 262-275-5050 |
| 8 | Long Beach Hi-Performance Swap Meet
Long Beach, California • 800-762-9785 |
| 14-15 | Motorcar Cavalcade 2022
Miami, Florida • 305-725-3096 |
| 15 | Pomona Swap Meet
Pomona, California • 714-538-7091 |
| 20-22 | Automania
Allentown, Pennsylvania • 717-243-7855 |
| 21-22 | Autoparts Swap & Sell
West Springfield, Massachusetts
860-871-6376 |
| 21-29 | Barrett-Jackson
Scottsdale, Arizona • 480-421-6694 |
| 22 | Arizona Concours d'Elegance
Scottsdale, Arizona • 480-499-8587 |
| 25 | Worldwide Auctioneers
Scottsdale, Arizona • 800-990-6789 |
| 26 | Bonhams
Scottsdale, Arizona • 415-391-4000 |
| | RM Sotheby's
Phoenix, Arizona • 519-352-4575 |
| 27-28 | Winter Auto Expo
Carlisle, Pennsylvania • 717-243-7855 |

Please note that these events are active as of press time.
We recommend you verify the status before making plans to attend.



MECUM AUCTIONS

MECUM IN CHATT TOWN

Mecum wrapped its annual auction in Chattanooga with overall sales eclipsing \$21 million. American muscle cars from 1964-'72 accounted for \$4.8 million of the total, with a 64.9-percent sell through. The top sale from this category was a 1968 G.T. 500KR convertible finished in dark green with a black interior. Shelby 03540 had undergone a frame-off restoration and was fitted with a 428 Cobra Jet engine mated to a four-speed manual transmission. Other features included power steering, power front disc brakes, Traction-Lok rear end, AM radio, and tilt-away steering column. The car was listed in the Shelby registry and it came with a Marti Report. When the bidding ended, the Shelby convertible sold for an auction-high \$302,500.

A heavily upgraded 1969 Camaro RS convertible outfitted with an LSV-8 crate engine also sold for a top ten

finish at Chattanooga. Dyno tested at 719 hp, the engine featured Eagle rods and Mahle forged pistons, plus Comp Cams camshaft and hydraulic lifters. Mounted on top of the engine was a Holley Sniper EFI system, and the V-8 was backed with a Tremec five-speed. Handling was improved via a new front and rear suspension, and disc brakes were also installed. Other custom features included the interior sporting TMI Sport VXR black suede seats and door panels, Dakota Digital gauges, and a Retro Sound stereo with Bluetooth capabilities. Meanwhile, on the outside, the Camaro featured Foose Wheels, billet taillamp covers, and a new power top including frame, cylinders, and wiring. The Rally Sport had been driven just 150 miles since its rebuild and found a new home for \$181,500. Full results from Mecum's Chattanooga auction are now available at mecum.com.

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- Seller of a 1980 Triumph TR8



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auction, the seller pays only a \$99.95 listing fee. The winning bidder is responsible for a 5-percent fee on all completed auctions. The following are examples of auctions that transpired during the month leading up to press time. If you have questions, comments, or suggestions, email Director of Auction Operations Terry Shea: terryshea@hemmings.com.



1957 CHEVROLET CORVETTE

RESERVE: \$130,000

SELLING PRICE: \$136,605

RECENT MARKET RANGE:

\$122,150-\$152,450

The rare Rochester fuel-injection option made the first-gen Corvette V-8 into a real powerhouse, and this Venetian Red 'Vette was so equipped. Mated to a four-speed manual, the 283 was said to operate correctly and provide smooth, trouble-free motivation for the virtually flawless-looking two-tone body, which was fitted with a white soft top and came with a correct, unrestored hard top. The red interior was upholstered in NOS vinyl, while the dash and door panels looked great, and all components worked as designed. Correct bias-ply tires supported a clean and accurately restored chassis. Considering the convertible's concours-ready presentation, this Chevy's healthy sale was well earned.



2008 E.R.A. COBRA

RESERVE: \$66,000

SELLING PRICE: \$70,876

RECENT MARKET RANGE:

\$64,120-\$83,450

Few sports cars are as widely respected as Shelby's Cobra, and this one, made by E.R.A. Replica Automobiles in Connecticut, had all the punch of the real deal. The fiberglass-bodied roadster wore Guardsman Blue paint with minimal stone chips divulged, and had no provision for a folding roof — just a tonneau. The interior was described as "excellent." This car's quad-Weber-carbureted Ford V-8 displaced 347-cu.in. and was tuned to perform at high altitude; a couple of oil leaks were noted, but the Tremec five-speed had no issues. Also trouble-free were the recently inspected tube chassis, disc brakes, and Jaguar-based independent rear suspension. This Cobra sold in the heart of its value range.



1965 CHEVROLET CORVETTE STING RAY

RESERVE: \$51,000

SELLING PRICE: \$73,500

RECENT MARKET RANGE:

\$51,150-\$73,540

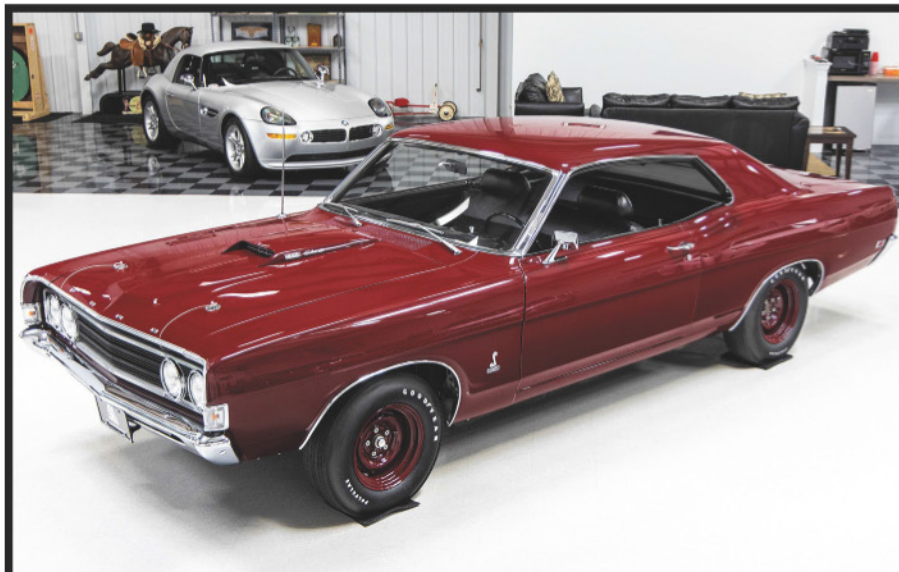
More than 18,500 views and 35 bids that resulted in the top-value selling price showed that a properly presented, factory-correct mid-year Corvette convertible will never lack admirers. This former Bloomington Gold-certified 'Vette, privy to a body-on restoration around 20 years ago, promised matching numbers, its 350-hp 327 V-8 and four-speed gearbox having been factory installed. The Milano Maroon paint was noted to exhibit a few paint chips, but the soft top was claimed good, as was the matching vinyl-upholstered interior. The engine bay looked very clean, while minor driveline oil leaks were divulged. Six videos and more than 100 detailed photos showed the Chevy in its best light.

LEGEND

RESERVE: Minimum price owner will accept

SELLING PRICE*: What the vehicle sold for, inclusive of buyer's 5-percent fee (*sold as a Make Offer listing following the live auction)

RECENT MARKET RANGE: The low-to-high value range for the vehicle based on published results of similar vehicles sold at auction over the previous 18 months



1969 FORD COBRA

RESERVE: \$88,250
SELLING PRICE: \$99,750

RECENT MARKET RANGE:
N/A

The Cobra hardtop coupe was all business in 1969, trading luxuries for go-fast goodies like the 428-cu.in. Cobra Jet Ram Air V-8 and Traction-Lok differential. A Marti Works report showed this car was restored in its original Royal Maroon over black vinyl livery, both said to be in very good condition with only minor flaws. The numbers-matching V-8 and C6 column-shift automatic were rebuilt and promised proper operation, and the engine bay and undercarriage were detailed to a high degree. Correct-style bias-ply tires had been driven fewer than 100 miles. Included with the sale were the original build sheet and photos documenting the restoration. This car easily exceeded its reserve.



1969 PONTIAC GTO

RESERVE: \$45,000
SELLING PRICE: \$59,850

RECENT MARKET RANGE:
\$41,120-\$49,450

This striking GTO convertible looked great in a fresh coat of Verdoro Green paint, applied after a rear quarter panel and the trunk floor were replaced in the process of performing a body-on restoration. The white soft top complemented the Parchment bucket seat/console interior, with its simulated wood-rim wheel and Bluetooth/satellite radio-equipped stereo. The original 350-hp, 400-cu.in. V-8 was rebuilt and paired with a three-speed automatic deemed "good." Seventeen-inch alloy Rally II-style wheels mounted redline radials fronting power front-disc/rear-drum brakes, and the undercarriage looked clean save for minor surface rust. The Pontiac handily beat the top average sale figure.



1968 OLDSMOBILE 4-4-2

RESERVE: \$75,000
SELLING PRICE: \$78,750

RECENT MARKET RANGE:
\$77,350-\$109,220

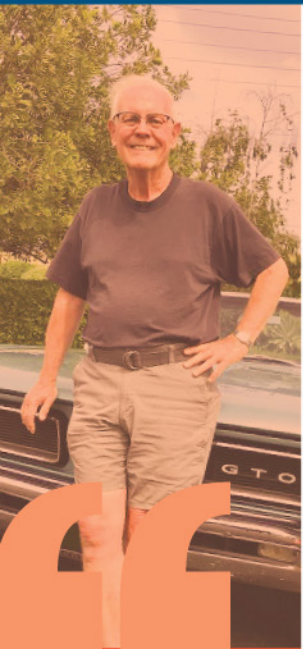
More than 10,000 views proved enthusiasts are drawn to vintage-muscle convertibles like this 1968 Oldsmobile 4-4-2. It was a numbers-matching, highly optioned four-speed example that enjoyed a recent comprehensive rotisserie restoration. One of just 1,518 built, it was repainted in factory Sapphire Blue after some rust repairs were finished, and rally stripes were added; the white vinyl interior sported Rally-Pack instrumentation, a tilt wheel, center console, working AM radio, and optional headrests. Reproduction Wide Oval tires complemented the detailed undercarriage, fitted with power steering and power disc/drum brakes. Five videos and ample photos showed the 4-4-2 in its best light.

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monthly

bright spot

surrounded

by a lot of

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darkness!

New Events for a New Year

Wow, what happened to 2022? Actually, I'm glad the last year is now over and done with. In my mind it was not a great time to be a car enthusiast. Way too many downers and not enough positive things happening within the hobby. Thank goodness for this magazine—it was a monthly bright spot surrounded by a lot of automotive darkness! The past year's news always seemed to me to be about something negative, particularly the monstrously high gas prices and destructive storms across the country, which adversely affected so many people. It also had a negative impact on our hobby and many automotive events. The increased gas prices resulted in many muscle cars being left sitting in the garage, rather than cruising as usual on weekends. I know it certainly negatively affected my driving pleasure. My regular Saturday or Sunday fun cruise pretty much ceased for way too many months!

But now it all seems like a bad dream, and as a positive result I also realize that it provided time for improving several areas of my '65 GTO. During those bad months I accomplished a bunch of little things that I wanted to do, but never got around to addressing since I was regularly using my muscle car. More than a few of my automotive friends experienced the same situation, so I guess there was a upside to that period of reduced driving.

Now that the worst seems to be winding down, it's time to get back to regularly using my car. My daughter, who lives and works back east, is visiting for several weeks and enjoys top-down cruising on sunny Sunday afternoons. We can finally get back to enjoying that little pleasure again while she's at home.

There's also a brand-new local car show scheduled for next month, and it promises to be a full house. It's being put on by a church group in their huge parking lot. I know one of the church members and he specifically called me to let me know of the event as it is a first ever gathering, so he asked if I would let my other car buddies

know about it. I enjoy attending these new events, because, if successful, they will most likely do it again next year. February weather in California can be unpredictable to say the least, so we'll hope for the best. I like to support first-time car shows, as good attendance usually contributes to pushing new events to becoming annual happenings. Or, in some cases, the event may happen multiple times a year if it proves really popular. We've all lost many enjoyable shows over the past few years due to circumstances beyond our control, so building up new gatherings is a worthy pursuit.

With new events coming back, more of my friends are looking to get out and enjoy their vintage cars. Recently a fellow GTO enthusiast called me about a car he was looking at and would possibly buy. The price was right, so we went to check it out. I was immediately turned off by the seller—he was pushing too hard, and when asked about several different mechanical areas, he danced around the questions, and we really didn't get any concrete answers. I advised my buddy that it might be better to pass on this one—too many important questions went unanswered.

I am often asked to accompany friends and friends of friends to look at vintage muscle cars being offered for sale, and I try to offer advice to people who are shopping for a classic. One of the things I often tell people is to arm themselves with some good books dedicated to the car or cars they are interested in. Over the years I have acquired quite a few books covering mechanical, cosmetic, and lots of other areas dealing with different makes and models of muscle cars. I usually take along one covering whatever car I'm looking at. This saves a lot of anguish down the road after you make a purchase. You might consider this as well when looking for a particular brand and model muscle machine.

Happy hunting for muscle cars in 2023—here's to a new year of enjoying our hobby! ■





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